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The Western Defences of Portsmouth Harbour 1400–1800

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Cover:

FORT BLOCKHOUSE 1855, showing the then recently rebuilt NE front. (*Illustrated London News*, 14 April 1855.)

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ABBREVIATIONS

BL	British Library
Bodl	Bodleian Library
Cal SP Dom	*Calendar of State Papers, Domestic*
DNB	*Dictionary of National Biography*
Hants RO	Hampshire Record Office
NMM	National Maritime Museum
PCL	Portsmouth Central Library
PCM	Portsmouth City Museums
PP	*Portsmouth Paper*
PCRO	Portsmouth City Records Office
PRO	Public Record Office
Staffs RO	Staffordshire County Record Office
VCH Hants	*Victoria County History of Hampshire*

A map, plan or chart is indicated by an asterisk

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I am indebted to Mr. Arthur Corney of Portsmouth City Museums and to Mrs. M. J. Guy the Portsmouth District Librarian and her staff for encouragment and help over a number of years. Mr. Martin Biddle FSA has informed me of some results of research done for the *History of the King's Works*. Dr. D. J. A. Tinling has located about forty cash accounts relating to the construction of Fort Monckton. Mr. D. Hodson also has helped, mainly with advance information from his *Maps of Portsmouth before 1801*. (This important work was published in July 1978, in time for me to make some improvements to my manuscript but not for me to investigate many maps of which I had previously been unaware.) The Public Record Office have allowed reproductions and transcripts of their Crown-copyright records, as shown in the captions and references. The appropriate naval and military authorities have kindly allowed me to examine both the existing fortifications which they control and some of their archives. The following also have freely allowed reproduction of their copyright material, or have lent material in their possession for reproduction, or both: Ministry of Defence (Navy), Hydrographer of the Navy, R. Clarence Yard, HMS *Daedalus*, RN Submarine Museum, British Library Board, Trustees of the British Museum, Bodleian Library Oxford, Hampshire Record Office, Portsmouth Central Library, City Museums and City Records Office, Gosport Borough Council, Gosport Society, Portsmouth & Sunderland Newspapers Ltd., Aviation Traders (Engineering) Ltd., Vicar of Holy Trinity Gosport, Rear Adm. R. W. Paffard, Cdr. J. Mowlam, the late Capt. G. Civil, Mr. R. J. Lawrence, Mr. J. E. Wyke, Mrs. J. Girvan and Mrs. B. M. M. Tree. Gosport Printing have lent negatives prepared for my *Earlier Fortifications of Gosport*, 1974. Finally, my thanks are due to the Technical Editor for drawing a map and a plan and for his sympathetic, skilled and enthusiastic treatment of the whole work, and also to my wife for her invaluable assistance at all stages.

THE WESTERN DEFENCES OF PORTSMOUTH HARBOUR 1400-1800

G. H. Williams, CBE, MA

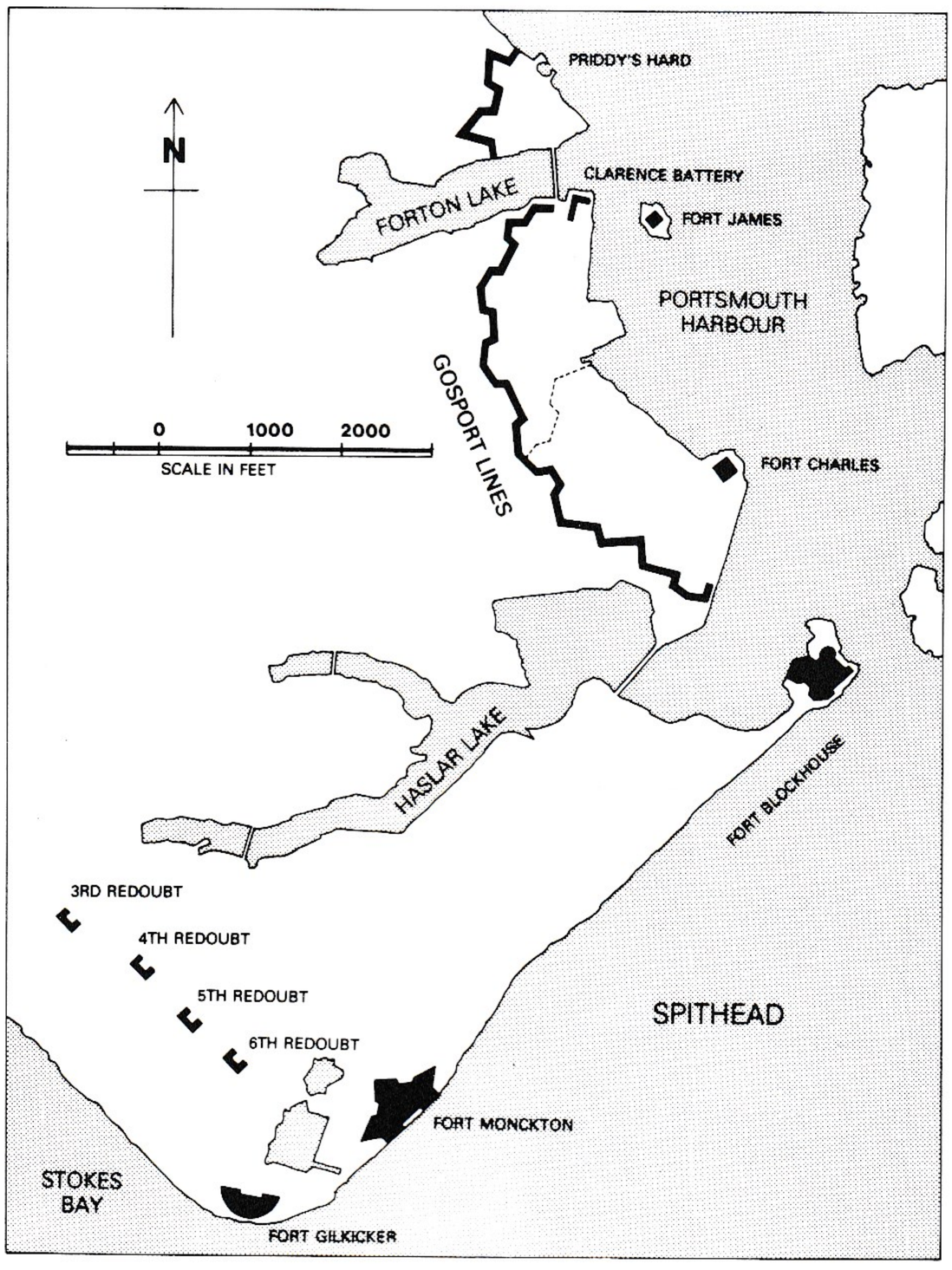


Figure 1 GENERAL MAP (Drawn by the Technical Editor.)

INTRODUCTION

From the 15th century onwards it was recognised that Portsmouth Harbour needed to be defended on both sides. The fortifications on the western (Gosport) side were on a more modest scale than those on the eastern (Portsmouth) side. This was because the installations of the naval base were all on the eastern side until, in the mid 18th century, the Government built Haslar Hospital and Priddy's Hard Magazine and bought the brewery which developed into the Royal Clarence Yard; previously there had been associated commercial establishments, such as a shipyard, a rope walk, an anchorsmith's smithy and breweries in Gosport.

The expansion of the fortifications on the two sides was usually concurrent. Both sides of the Harbour entrance were fortified in the 15th century. Along the coast, Southsea Castle to the east and Haselworth Castle to the west were built at the same time in the 16th century. In the late 17th century the first defences round the Dockyard and Old Gosport were constructed. In the late 18th century the defences enclosing the Dockyard were replaced by stronger and more extensive ones enclosing also the new town of Portsea, while the Gosport defences were strengthened and extended northwards; along the coast, the rebuilding of Fort Cumberland to the east was started and Fort Monckton to the west was built. In the 19th century it was intended to have a chain of land and sea forts well away from the Harbour, though the fort at Lee-on-Solent and an adjacent one were never built and interim defences had to suffice on the west.

The fortifications of Gosport, like those of Portsmouth, had a considerable role in determining the layout of the town. The open spaces of St. George's Field, the north part of Walpole Park and several car parks to the east are on the site of the ramparts and associated works. Most of the open spaces remaining in the present playing field of Bay House School off Privett Road, in HMS *Sultan*, in Brune Park School and in the RN Armament Depots at Bedenham and Elson were kept clear of building because they were in the field of fire of the guns of the Gomer-Elson line of forts. The ramparts affected the position and design of the railway station.

The locations of most of the major Service establishments have been determined by the fortifications. HMS *Dolphin*'s accommodation overflowed from Fort Blockhouse and HMS *Sultan*'s from Fort Grange. What is now the RNAD moved from Portsmouth to the already fortified area of Priddy's Hard and expanded outwards. Other units are in Forts Monckton and Rowner. St. George Barracks was built along the inside of the ramparts, and the Oil Fuel Depot and HMS *Centurion* on ground which had been kept clear to preserve fields of fire.

So far is history. But we must go back before recorded history to explain the locations of some fortifications. The general eastward movement of beach material along the South Coast has in many cases built up a shingle spit on the western side of an inlet of the sea. Such a spit, if substantial enough, provides a natural position for defending the entrance to the inlet. Thus the opportunities were provided for building Hurst Castle at the western entrance to the

Figure 2 GOSPORT CIRCA 1711. L to near M, Gosport Lines; H, Fort Blockhouse; I, Fort Charles; K, Fort James; Q, Kickergill and Gilkicker. (BL K. Top. XIV 42b, published by Robert Hulton, advertised in *Evening Post*, London, 1 Nov. 1711, and now reproduced by permission of the British Library Board.)

Solent, Calshot Castle at the entrance to Southampton Water, and Fort Blockhouse and its predecessors at the entrance to Portsmouth Harbour. The modern buildings of HMS *Dolphin* and extensive reclamation in Haslar Lake have obscured most views of Fort Blockhouse and the fact that it once stood on a long and narrow peninsula.

Stokes Bay beach once formed another such shingle spit, which diverted the Alver eastward along a tidal marsh to flow into the sea in the position of the present lake. In this case, however, Haselworth Castle was built not on the spit but on the other side of the inlet, where Fort Monckton now stands. The original Gilkicker Battery was not built till after Stokes Bay Marsh had been reclaimed.

For the benefit of readers who do not know Gosport I would explain that Fort Blockhouse stands on the west side of the narrow entrance to Portsmouth Harbour. Going north along the west side of the Harbour one comes successively to a creek called Haslar Lake, Old Gosport, the Royal Clarence Yard, a creek called Forton Lake and Priddy's Hard. The Alver now flows into the sea rather over two miles to the west. Some grid references are in the Index.

The most accessible of the surviving fortifications (apart from those in the Epilogue) are the exterior of Fort Gilkicker and the bastion near Holy Trinity Church. Neither Fort Blockhouse in HMS *Dolphin* nor the Gosport Lines in St. George Barracks are open to the public, but if serious students of defence works write to the Visits Office, HMS *Dolphin*, and to the Commanding Officer, St. George Barracks, arrangements may be made for access to these fortifications. No such access to the Gosport Lines in the RN Armament Depot, to Fort Monckton or to the interior of Fort Gilkicker can be permitted.

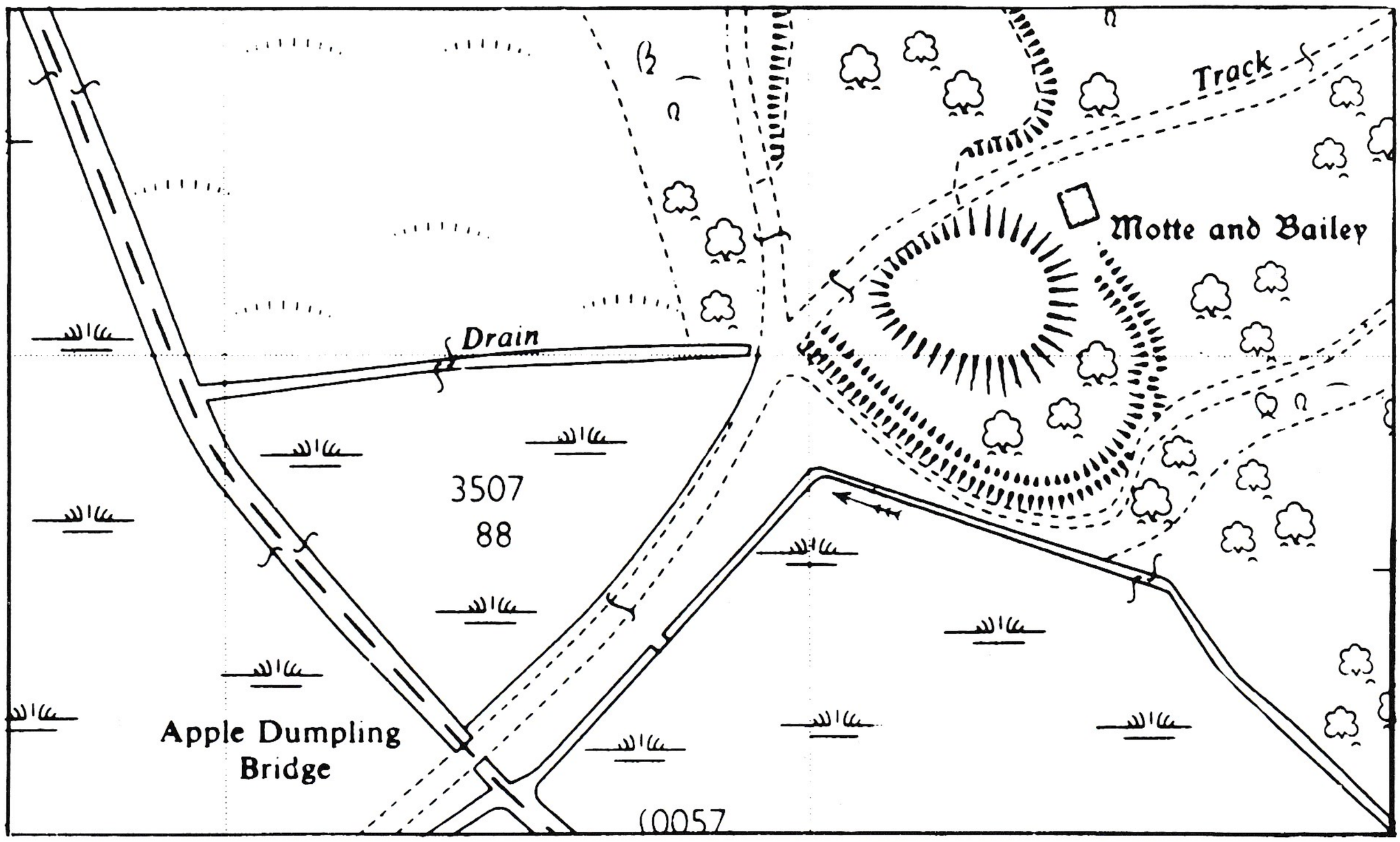


Figure 3 CASTLE MOUND (1/1250 Ordnance Survey map reduced to 1/1490; Crown copyright reserved.)

The fortifications, apart from the very earliest, were designed for the mounting of guns, and this was the prime purpose of most of them. Men were allotted to fire the guns, and in many cases lived within the fortifications. The armament and the garrisons are worthy of separate studies. I have not attempted to cover either of them, but have in the main confined myself to the actual buildings, earthworks and moats.

In 1974 the Gosport Historic Records & Museum Society (now named the Gosport Society) published a smaller paper by me on *The Earlier Fortifications of Gosport*, which is now out of print. This dealt with the works started by the middle of the 18th century, though it continued the history of these up to the end of their operational lives. I have here revised and expanded it, and continued the story to cover the works undertaken in the second half of that century, particularly Fort Monckton. The subsequent works, which are briefly mentioned in the Epilogue to this present paper, would be best dealt with in the context of the Victorian fortifications of the Portsmouth area as a whole.

TUDOR AND EARLIER FORTIFICATIONS

Castle Mound

The earliest definitely identifiable fortification in Gosport is Castle Mound, on the left of the track from the Rowner RN married quarters to Apple Dumpling Bridge, as shown in Fig. 3. This was of the 'motte and bailey' type, which the Normans used to build at the time of the Conquest. On the edge of the escarpment is a mound (motte), on top of which there would probably have been a wooden stockade; extending south-east from it at a lower level is an enclosure (bailey) surrounded by a bank. An ill-defined depression to the north is probably an old gravel working.[1]

Castle Mound was obviously intended to defend a crossing of the River Alver. In 1971 the South Hampshire Archaeological Rescue Group excavated the remains of a settlement of about the 9th century on the adjoining naval married quarters site;[2] the Castle Mound position may have been defended at that early date. There is now a modern defence post on the bailey bank, probably one of the World War II defences of Grange Airfield. So does history repeat itself.

Other possible early fortifications

It has been suggested that the etymology of the name Bury and its variants implies that in Celtic or early Saxon times there was at the place so named a town with some fortification or defensive work, of which the larger of the two mounds in Mound Close may possibly mark the site.[3]

It has been stated that King Stephen built a castle on Burrow Island (Rat Island). The first known reference to this is in 1800; probably it is a legend which attached itself to the ruins of Fort James at a late date and is related to the legend that King Stephen or his brother Bishop Henry of Blois landed at 'God's Port'.[4]

Figure 4 THE HARBOUR ENTRANCE CIRCA 1545, a contemporary picture. (Bodl Gough Drawing a. 4 fo. 19.)

The Blockhouse and Lymden's Bulwark

The original 'blockhouse' which gave its name to Blockhouse Point at the Harbour mouth (see Fig. 22) and so later to Fort Blockhouse was a round tower opposite the 'Round Tower' which still exists on the Portsmouth side.[5] The word 'blockhouse' originally meant, not a house shaped like a block or built of blocks, but one which could be used to block a passage against an enemy.

The first likely reference to the Blockhouse is in 1417, two years after Henry V had sailed from the Harbour to win the Battle of Agincourt: authority was then given for work on 'the king's towers' at the entrance of the port of Portsmouth. In 1420–22 £1,069 was spent on building a tower and on constructing a wharf at 'Childrode' as a foundation for a second tower. Presumably these were respectively the Portsmouth Round Tower and the Blockhouse.[6]

There are records of expenditure in 1492 on a tower and a blockhouse[7] and in 1494 on a tower and a bulwark.[8] At least one of these references seems to be to the Gosport Blockhouse, though by this time the Portsmouth Square Tower complicates the interpretation of the records.

In Henry VIII's reign, probably in 1539, Sir Thomas Sperte, Clerk of the King's Ships, built another fortification close by. There are in existence four garrison lists of about 1540 which mention the 'Bulwark of Mr. Spert's making at Gosportside and the blockhouse there'. One of them deals only with gunners[9] but the other three show a captain, three gunners and two soldiers. One of these three lists, dated 9 March 1539/40 (see Glossary on page 67), which is probably the earliest and which incidentally is corrected in the King's own hand,[10] shows the captain's name as Slymbye; the two others show it as Robert Lymden.[11] The garrison listed would be a cadre, to be reinforced by unskilled men if the need arose.

Robert Lymden was in charge of the Bulwark when it was repaired in 1544,[12] and became Mayor of Portsmouth in that year.[13] A list of the armaments in the Portsmouth area of about the end of 1547 shows him as still in charge of it.[14] A map of about 1584 shows Lymden's Bulwark as 'Lidenns' Bulwark;[15] thus the name had become permanent.

Fig. 6 is part of well-known Cowdray Print, which shows Henry VIII and the sinking of the *Mary Rose* in 1545; this part shows, beyond the Harbour entrance, the Blockhouse, Lymden's Bulwark and Haselworth Castle (which we shall come to later). It places the first two much too far away, but is probably correct as regards their general appearance, as it is consistent with Figs 4 & 5.

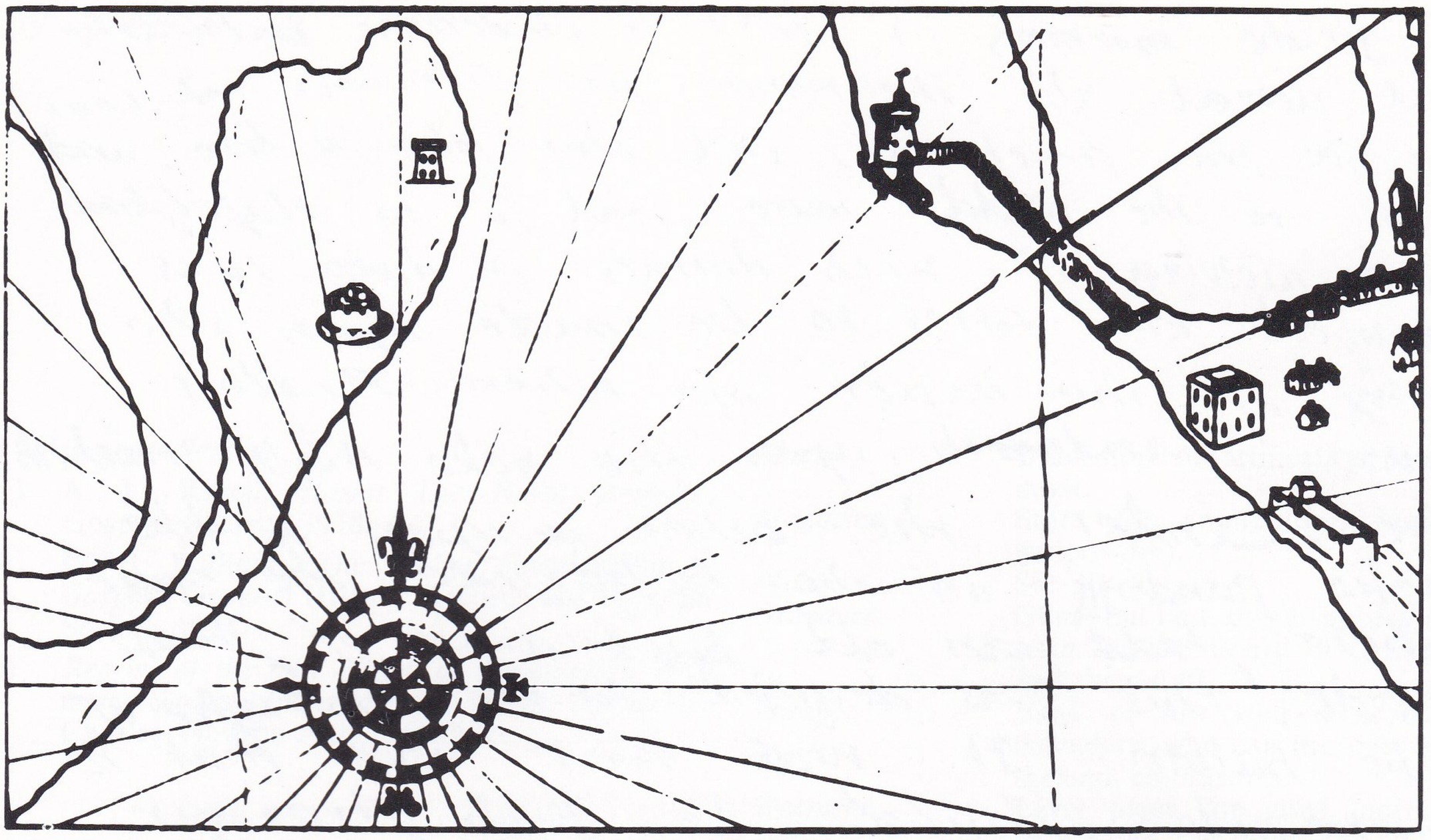
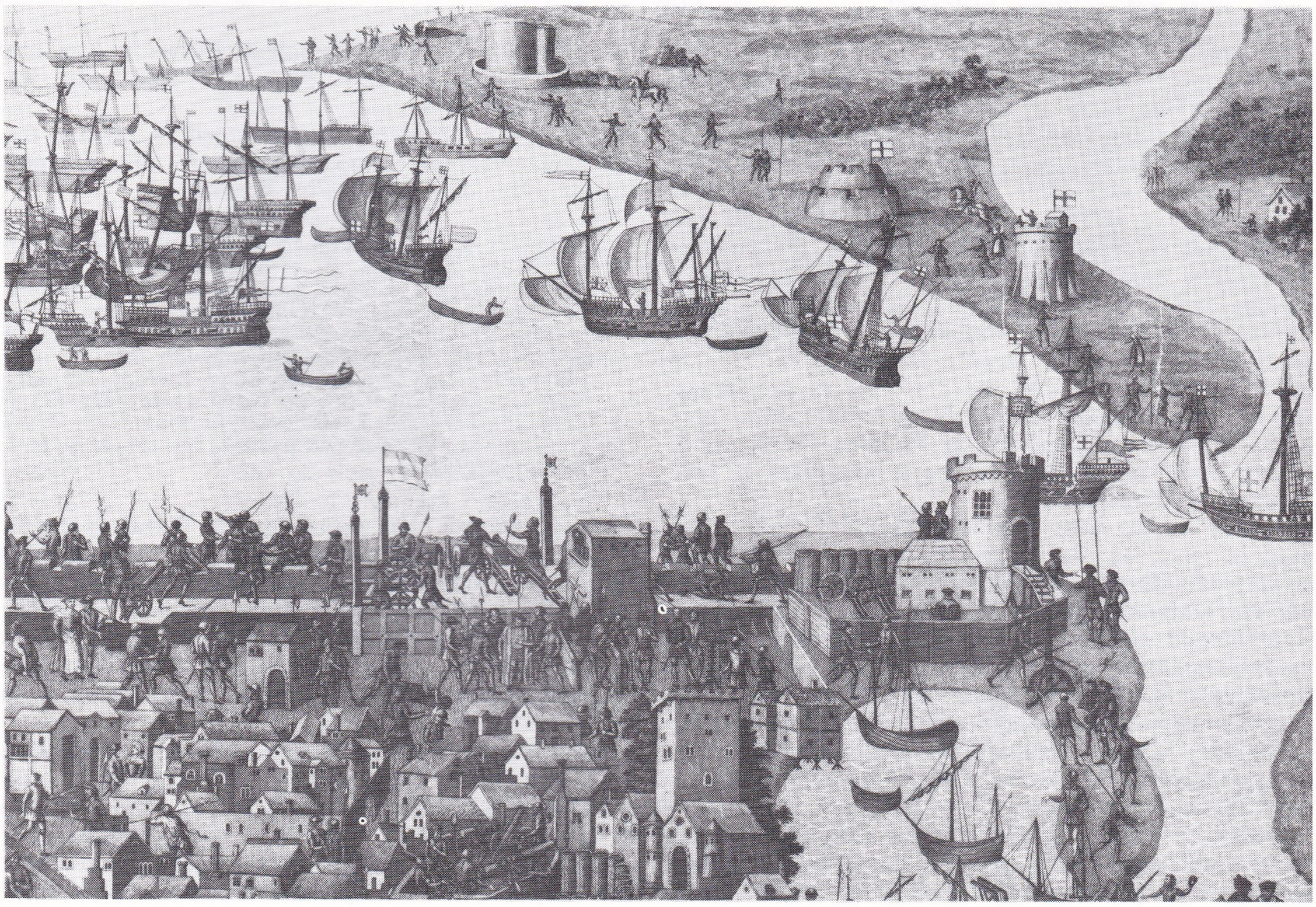


Figure 5 MAP OF ABOUT 1550 showing on left the Blockhouse and Lymden's Bulwark. (BL Cott. MSS Aug. I. ii. 15, as reproduced in R. East, *Extracts from Portsmouth Corporation Records*, 1891.)

Figure 6 THE HARBOUR ENTRANCE 1545, see pp. 8, 11 and 13. (PCM.)



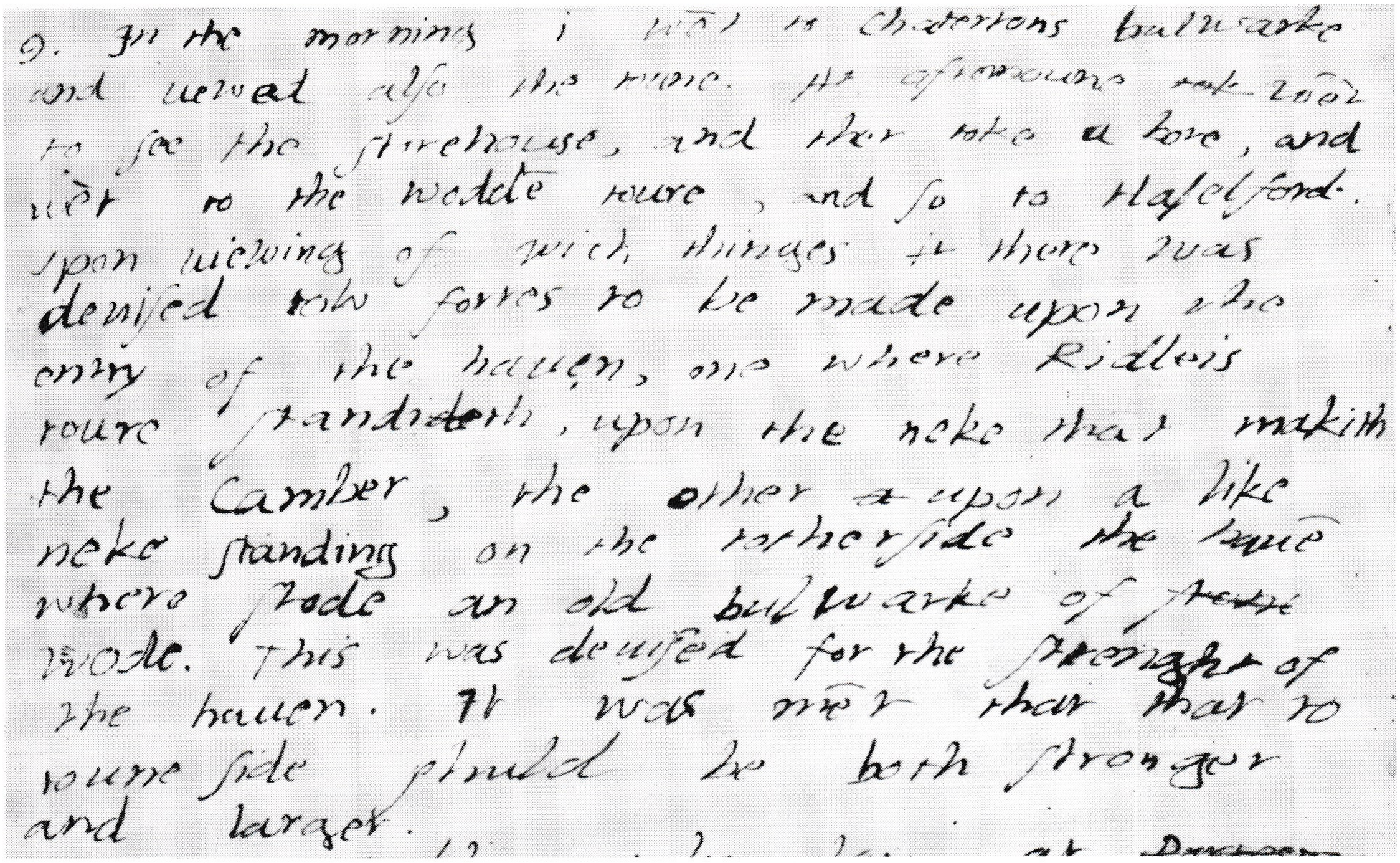


Figure 7 EDWARD VI'S JOURNAL FOR 9 AUGUST 1552 written in his own hand, reduced in size. (BL Cott. MSS Nero C. 10 fo. 70 verso, reproduced by permission of the British Library Board, retouched.)

In about 1542 the antiquarian John Leland visited first Gosport and then Portsmouth. In his account of Gosport he wrote of the Blockhouse: 'Ther is a round stone toure with ordinaunce at the west point of the mouth of Portesmouth haven'. (Lymden's Bulwark had recently been built, but being an antiquarian rather than a military man he ignored it.) In his description of Portsmouth he wrote of the Round Tower and Blockhouse: 'There is at this point of the haven Portesmuth toun, and a great round tourre almost doble in quantite and strenkith to that that is on the west side of the haven right agayn it . . . . . I learnid in the toun that the 2 towers in the haven mouth were begon in King Edwarde the 4 tyme, and sette forwarde yn building by Richard the 3. King Henry the vij endyd them at the procuration of Fox Bisshop of Winchester'.[16]

Leland must have been misinformed about the start of work on the towers, as Edward IV did not come to the throne till 1461. Richard Foxe was Bishop of Winchester from 1501 till after Henry VII's death in 1509, and until later in his career was more active as a statesman than as a churchman. He was already prominent in public affairs in 1492–94, and the expenditure in that period which we have already noted may have covered what Leland regarded as the completion of the towers. Fig. 8 shows Foxe in later life, when he was blind.[17]

Although Leland said that the Blockhouse was 'with ordinaunce', the above-mentioned armament list of about the end of 1547, which enumerates guns and other equipment in Lymden's Bulwark, does not mention the Blockhouse; perhaps it had been disarmed since his visit.

On 9 August 1552 Edward VI, aged 14, crossed the Harbour entrance from Portsmouth. His journal, written in his own hand, (Fig. 7) reads:

> '9. In the morning i went to Chatertons bulwarke and vewed also the toune. At afternoune went to see the Storehouse, and ther toke a bote, and went to the wodden toure, and so to Haselford. Upon viewing of wich thinges there was devised tow fortes to be made upon the entry of the haven, one where Ridleis toure standith, upon the neke that makith the Camber, the other upon a like neke standing on the tother side the haven where stode an old bulwarke of wode. This was devised for the strenght of the haven. It was ment that that to toune side should be both stronger and larger'.

Soon afterwards he wrote to his friend Barnaby Fitzpatric 'the haven notable great and standing by Nature easy to be fortefied, and for the more strenght thereof we have devised two strong castellis on either side of the Have(n) at the mouth thereof'.[18] But within a year he was dead and the political situation had completely changed; his rebuilding plans were never carried out.

There has been some disagreement whether the old wooden tower or bulwark which Edward visited was the Blockhouse, which Leland says was made of stone, or Lymden's Bulwark, which when newly-constructed seems to have been one of several works described as 'not very durable, being made of stakes filled with

earth as if made in a hurry'.[19] Haselford was Haselworth Castle, which we shall come to later. Ridley's Tower was the Portsmouth Round Tower.

In a map of about 1585 and a discussion in 1588, just before the arrival of the Spanish Armada, Lymden's Bulwark was described as old and decayed, and there were proposals to restore or demolish it.[20] Probably nothing came of them. The absence of the Blockhouse from this map and discussion and from another map of about 1585[21] suggests that it had disappeared by then. Perhaps it had been demolished to clear the site for Edward VI's proposed tower.

The remains of Lymden's Bulwark are marked as a mound on an early or mid 17-century chart,[22] and again on Fig. 9.

The Chain

Over a long period of time several successive chains were laid across the mouth of the Harbour with the intention that they could be raised by means of capstans and floats to close the entrance.

In about 1420 a great iron ring was affixed to the Portsmouth Round Tower for securing such a chain.[23] In 1492 there was a payment for 'a chene overthwart the haven'.[24] This chain was removed in about 1513[25] and a new one was made in 1522.[26] John Leland, in his description of Portsmouth quoted above, follows his account of the Portsmouth Round Tower and the Blockhouse by saying: 'and heere is a might[y] chain of yren to draw from tourre to towre'.

The chain and lighters to bear it were not ready for immediate use at the time of the 1545 naval battle in which the *Mary Rose* sank,[27] but what appears to be a capstan for it can be seen in front of the Portsmouth Round Tower in Fig. 6.

A map of about 1584 has a very exaggerated representation of the Portsmouth end of the chain, and another shows 'the chen' at Blockhouse Point[28]. The chain seems to have been taken into store at Tipnor in 1585.[29] At about the beginning of 1642 Charles I's Governor of Portsmouth, who was to surrender the town a few months later to the Parliamentary forces (see page 14), asked for a chain to go across the Harbour mouth 'as has formerly been there'.[30]

In October 1664 a contract was placed with Edward Silvester, anchorsmith of Gosport, for a chain 260 fathoms long 'for his Majestys shipps to ride by at Portsmouth'.[31] There are in the Public Record Office some 30 documents relating to this chain;[32] these show that it was primarily a mooring chain, though local historians have generally described it as a defensive

Figure 8 BISHOP RICHARD FOXE (British Museum 07–115; Corvus pinxit, Vertue sculpsit.)

chain. Fabrication was delayed by the plague which raged in Gosport in 1666,[33] by the diversion of the iron to other work[34] and above all by the failure of the naval authorities to make the agreed progress payments. The length required having been reduced to 175 fathoms, it was finished, though not assembled, in January 1671/2.[35] Each link was 3 feet long or rather more and weighed a little over $1\frac{1}{2}$ cwt.[36] In 1667, during the Second Dutch War, a Dutch fleet broke a chain across the Medway, captured some British ships and burned others. It then divided into two squadrons, of which one came within cannon shot of Southsea Castle but sailed away again;[37] in this crisis Silvester's uncompleted chain was used in some way at the mouth of Portsmouth Harbour, though as it was then not more than 100 fathoms long it could not have spanned the full width of about 125 fathoms.[38]

By the 1690s a very different form of boom had been prepared. This is described in a letter, written by Adm. Sir George Byng from Portsmouth Dock on 22 February 1707/8,[39] which is now in the House of Lords Record Office. A French fleet was at Dunkirk, preparing to sail with the Old Pretender and to attempt to land him in England or Scotland. Byng had come to Portsmouth on 19 February to collect ships to oppose the French. Byng wrote:

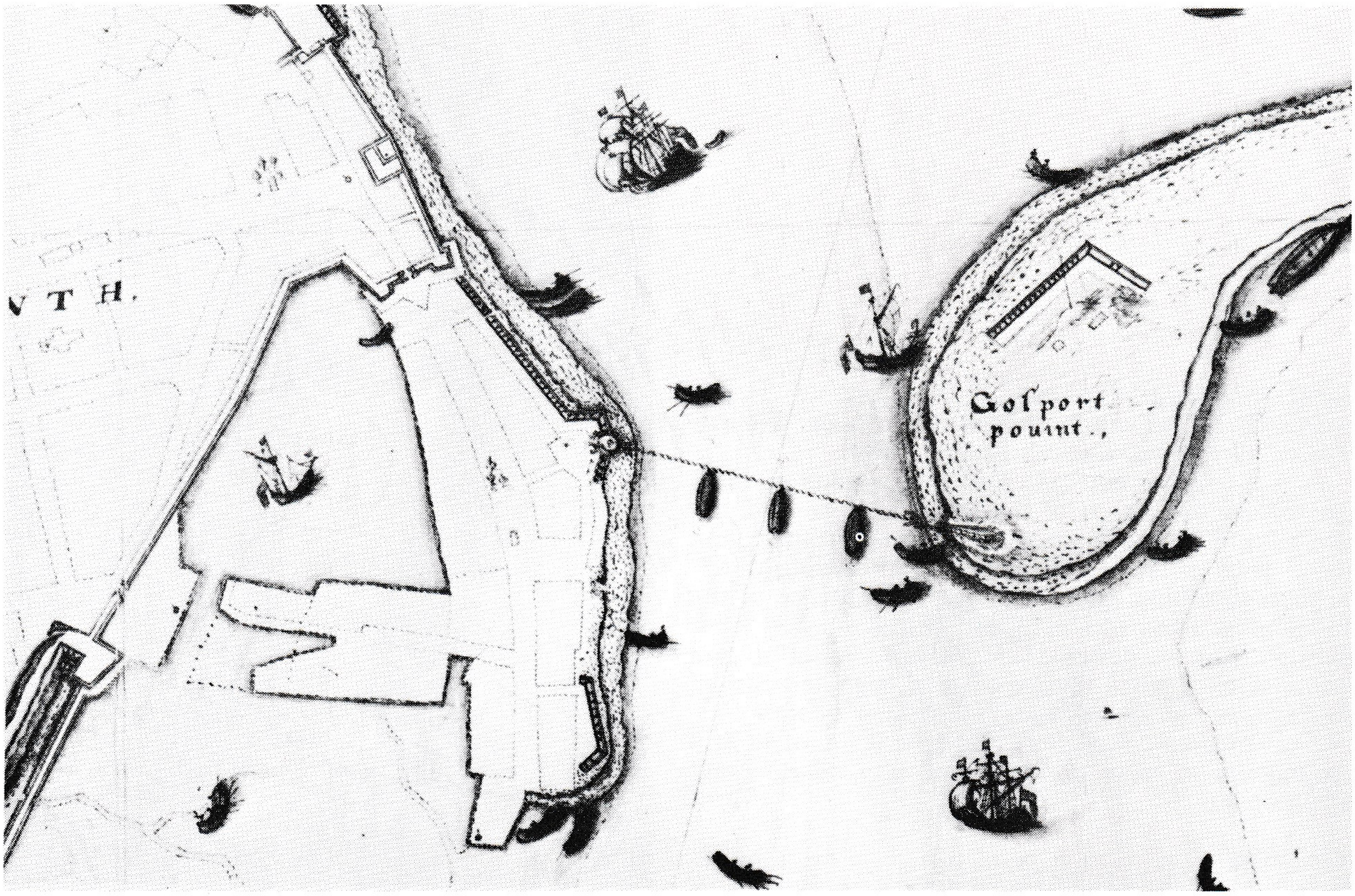


Figure 9 THE HARBOUR ENTRANCE LATE 17TH CENTURY, see pp. 11, 12 and 22. The north is at the bottom of the map. (BL Add. MSS 16370 fo. 12, reproduced by permission of the British Library Board.)

> '. . . at present there is no boom fixed to lay athwart the harbour's mouth; there was formerly a boom made, which, I understand, for these fifteen years last past has lain by neglected, and at best was such, I am told, as would not last four tides in the manner it was fixed, being only pieces of masts linked together with iron fixed thereto, through which a cable was to be reeved, and so laid across the harbour's mouth with chains at each end to prevent its being suddenly cut; however, I have ordered a survey to be had on that boom with the crabbe that is to heave tort the cable, and the chain to be cleared, which now lies under many tons of beach; if there be any apprehensions of the enemy's attempts this way, I think that boom should be put in order'.

('Crabbe' at that time could mean capstan.) He went on to recommend that blockships should be prepared for sinking in the channel outside the Harbour. (One of the ships suggested was 'a great old Dutch man-of-war that was bought by Capt. Player and is of very little value'; this Capt. Player was the brewer who had built Weevil Brewery, which later became the Royal Clarence Yard[40]).

In the light of what we have learned from written records of the 17th-century chains, it is interesting to look at Figs 9, 22 & 23. Fig. 9 shows a chain or floating boom attached to the bows of three boats; the original faintly shows these as anchored fore and aft. (A plan of proposed fortifications, 1679, appears to show a floating boom with no anchored boats.[41]) Fig. 23 shows a chain as lying on the shore between high and low water-mark, with an alternative terminal to the north west. (A mid or late 18th-century plan shows in some detail two 'capstans of the boom' on the shore rather further south than the two terminals at Fig. 23.[42]) Fig. 22 shows, on the near side of the peninsula, a circular object which may be a capstan; to the left of it is a suggestion of two bollards, and to the right of it are four or five pieces of timber which might be components of a boom of the type described by Byng.

Some sort of boom was used to close the Harbour mouth in 1779 when, during the War of American Independence, a Franco–Spanish invasion fleet entered the Channel (see page 44),[43] but the following year the Army Commanding Engineer said that there could be little dependence on it, as so many such booms had been forced.[44] The chain is said to have been renewed by Henry Cort at his forge in Gosport in 1785.[45] It was in position on the sea bed ready for use in 1801[46] and is said to have been tested at about this time.[47]

On the Gosport side, an 'old chain' is shown in a chart of 1840[48] lying across the beach a little south of its position in Fig. 23. On the Portsmouth side, the remains of a capstan for the chain were still in Capstan Square in 1843.[49] On the beach to the east of the Round Tower several links were excavated in the late 19th century and again in 1930.[50] Five links and a

ring were excavated in 1972 by the Fort Cumberland & Portsmouth Militaria Society in the same position. Two links are now in Southsea Castle.

In 1970 the College of Arms added supporters to the arms of the City and included the 16th century chain, attached to a sea-unicorn. (See the cover of this paper.)

Finally, we come to more modern booms. The 1860 Royal Commission on the Defence of the UK recommended that at a time of expected attack a floating barrier should be moored across the entrance of the Harbour.[51] In 1905 the Admiralty tested such a boom, which they were holding in store. It comprised a large number of baulks of timber floating parallel with the shore and secured by steel hawsers; each was over 30 feet long and armed with steel spikes. The central section, between two anchored floats, could be towed away. Unfortunately a dockyard launch was swept by the tide on to the spikes and holed and had to be beached at Blockhouse.[52]

In World War I a boom was placed across the Harbour mouth and closed nightly and in fog. The two ends, between anchored hulks and the shore, were similar to the 1905 boom. Between the hulks was an anti-submarine net, which could be hauled up to close the gap or dropped onto the sea bed. In the boat yard of the Portsmouth Sailing Club, adjoining the house called Boom Tower, there remain an engine house and fairlead for hauling up the net; there were similar arrangements on the other side outside Fort Blockhouse.[53] The two hulks and the ends of the boom can be seen in Fig. 33.

Haselworth Castle

We now come to Haselworth Castle, the most distant of the three Gosport fortifications shown in Fig. 6. Henry VIII, following his quarrel with the Pope, undertook the first major scheme of coastal defence since the erection of the Roman 'Saxon Shore Forts' which had included Portchester Castle. His first series of castles included those at East and West Cowes and Calshot; his second series included Haselworth, Southsea, Sandown, and probably St. Andrew's (Hamble) and Netley.

We first hear of Haselworth Castle in 1545, when Richard Uvedale was selected as captain of 'the new blockhouse or fortress upon the point of Hasilworth near Portesmouth'.[54] This was the year of the naval battle in Spithead during which the *Mary Rose* sank. The Castle's position has been variously described, but all the best contemporary evidence places it on the site now occupied by Fort Monckton.[55] (For a descrip-

Figure 10 EXCAVATION OF THE CHAIN 1930 (*Hampshire Telegraph, 1799–1949 Souvenir.*)

Figure 11 TEST OF BOOM 1905 (PCL Pescott Frost vol. 2 p. 30.)

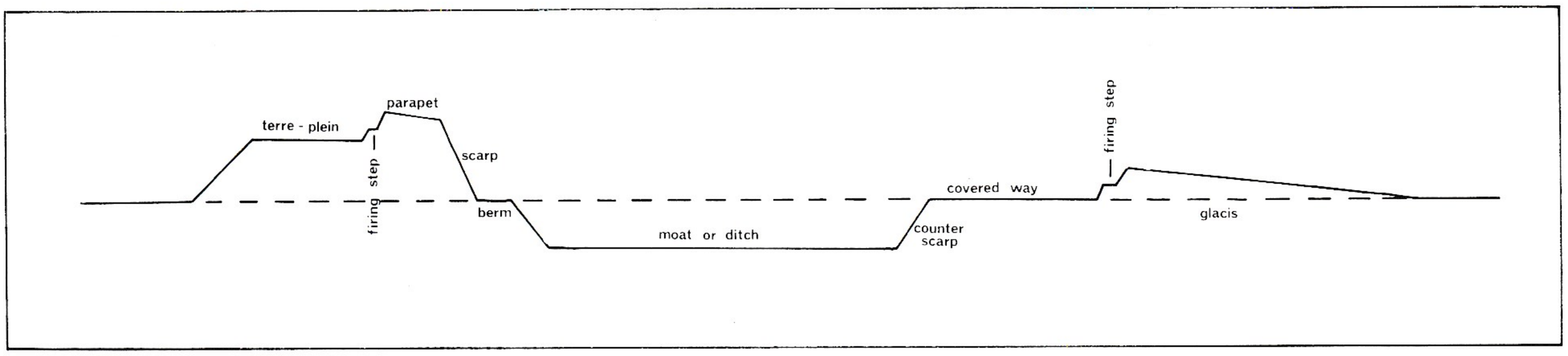


Figure 12 DIAGRAM OF A TYPICAL FORTIFICATION, see also Glossary on p. 67. (Traced from PCL Dartmouth Collection no. 10a.)

tion of the local geography at the time, see pages 42 & 43). The shape of the Castle in the Cowdray Print may be wrong, as is that of Southsea Castle; an early copy of a 1626 map shows it as square.[56]

The armament list of about the end of 1547 mentioned earlier shows the Castle as much more lightly armed than Lymden's Bulwark.

Edward VI, as we have seen, visited Haselworth Castle. In his letter to Fitzpatric he wrote: 'we . . . viewed . . . divers Bulwarkes, as Chatertons, Haselford, with other. In viewing of wich we find the Bulwarkes chargeable, massie, well rampared, but il facioned, il flanked, and set in unmete places'.

In the following reign the Castle was 'beaten downe by King Phillip'.[57] There is a story that when he sailed into Southampton in 1554 to marry Queen Mary all the forts fired salutes except Haselworth, which was beaten down in consequence.[58] A more prosaic explanation which has been suggested is that it was scrapped as the result of a review of coastal fortifications by the Marquis of Winchester under instructions dated 1556.[59]

By 1588 the Castle was 'decayed and fallen down'.[60] By 1628[61] it was a 'Castle in Ruins formerly called Haselworth Castle'; the more picturesque Latin original of this is 'a quodem Castro subverso olim vocato Anglice Haselworth Castle'.

In the mid 17th century the Gilkicker landmark was erected on the site; presumably the ruins had by then become inconspicuous from the sea. The landmark can be seen in Fig. 24. It was used by ships sailing into Spithead in conjunction with another, the Kickergill, which stood in Clayhall Road till 1965.[62] (Pictures of the landmarks are at *Gosport Records* No. 6, pages 23 and 24.)

STUART FORTIFICATIONS

The Parliamentary Batteries

At the start of the Stuart period Gosport seems to have been practically undefended. The next gun positions prepared were temporary ones, but they gave a forceful demonstration of the importance of Gosport to the defence of Portsmouth.

In August 1642, at the beginning of the Civil War, the Parliamentary forces held Gosport and the Royalists Portsmouth. On about the 18th the former started 'framing some workes to make a Fort'. These were not at Blockhouse, as has been thought, but 'at Gosport, a little village, halfe a mile over the water from the towne' of Portsmouth, i.e. somewhere near the present Ferry Gardens. The forces at Gosport constructed a platform for 10 guns behind a barn and a platform for 2 guns behind a pile of faggots (the normal material at that time for screening military works in the face of the enemy). It seems that only the two guns came into action, but they were very effective, and in particular so damaged the nave and tower of St. Thomas's Church (now the Cathedral) that these had to be rebuilt after the Restoration; the Royalists had been using the tower as a watch-tower and the bells for communication.

On the night of 3 September the Parliamentary forces captured Southsea Castle and turned its guns on the town. On the morning of the 4th the Governor of Portsmouth 'having seen through a prospective glass, so good and faire a Plat-forme for ten pieces of Ordnance at Gosport, in that very morning, before the break of day, he called a Councell of Warre' and agreed to surrender. Presumably the Parliamentary forces had finished the platform and demolished the barn which had screened it.[1]

Parliament already had control of the Navy, at any rate in this area, and from now on made full use of the naval base.

General form of fortifications

Soon after the Restoration of 1660, the defences of Portsmouth, including those of Gosport, were given attention. But before going into the construction of the rampart and moat round the old town of Gosport, which were known as the Gosport Lines, it is necessary to understand the principles of such fortifications; these principles were applied later elsewhere, particularly at the south-west front of Fort Blockhouse and at Fort Monckton.

The accompanying diagrammatic section (Fig. 12) is traced from one of the working drawings for construction of the Gosport Lines and is typical of such fortifications, though the Lines were not immediately completed in such an elaborate form. The defenders are assumed to be to the left of the section. On the left we have the rampart: this comprised a terre-plein, for the men and guns; a firing step, for musketeers; a parapet, over which they would fire; and a scarp dropping into the moat. In some cases the guns would fire over the parapet, in others they would fire through embrasures (apertures) in it. There were usually ramps up the defenders' side of the rampart to provide access. Near the bottom of the scarp was a berm or level space, to prevent debris from the rampart from falling into the moat; a sentry on it

at night could, without being seen, see in silhouette an enemy approaching the far side of the moat.

To the right of this was the moat, which in the Gosport Lines was wet but in some forts was dry; some of the plans for the Gosport Lines (e.g. the profile at Fig. 15) had in the middle a deeper portion, known as a cunette, and one is mentioned in a document of 1752.[2] Beyond the moat was a level area, known as a covered way, for a first line of defence and for grouping for a counter-attack. This was protected by another parapet and a gentle slope beyond known as the glacis; the guns on the rampart pointed down this so that they could rake it with fire. Between the covered way and its parapet was a firing step; sometimes the far edge of this carried a palisade between the stakes of which musketeers could fire.

Gosport readers can see a terre-plein, a firing step, a parapet and the top of a scarp sectionalised in brick above some garages 50 yards east of Holy Trinity Vicarage. At Fort Monckton they can see a dry moat with covered way and a glacis sloping down to the former shore of the lake.

So much for the section. As regards the plan of the defences, the object, at any rate till late in the 18th century, was that every part of the scarp could be covered by flanking fire from adjoining parts of the rampart. Wherever possible this was secured by making portions of the rampart project as angular bastions in front of its main line, the straight portion between two bastions being known as a curtain. The outside of the covered way also had angular salients. The design of fortifications was a rapidly developing science in Charles II's time, and at least one of the original Gosport drawings looks like a mathematical exercise. Indeed, it would be an interesting piece of research for a mathematician to compare these drawings with a standard text-book of the time, such as *The Count of Pagan's Method of delineating all manner of Fortifications (Regular and Irregular) from the Exterior Poligone reduced to the English measure.*[3]

Some of the drawings and estimates for the Gosport Lines included V-shaped works called ravelins on islands in the moat in front of the curtains, such as those outside the Landport Gate and elsewhere at Portsmouth, but there is no conclusive evidence that these were actually constructed at Gosport at any stage.

The material of a rampart was basically earth, usually obtained by the excavation of the adjoining moat. Sometimes the scarp was revetted with brick, as at Fort Blockhouse, or with stone, as at Fort Monckton, and could then be nearly vertical. But a

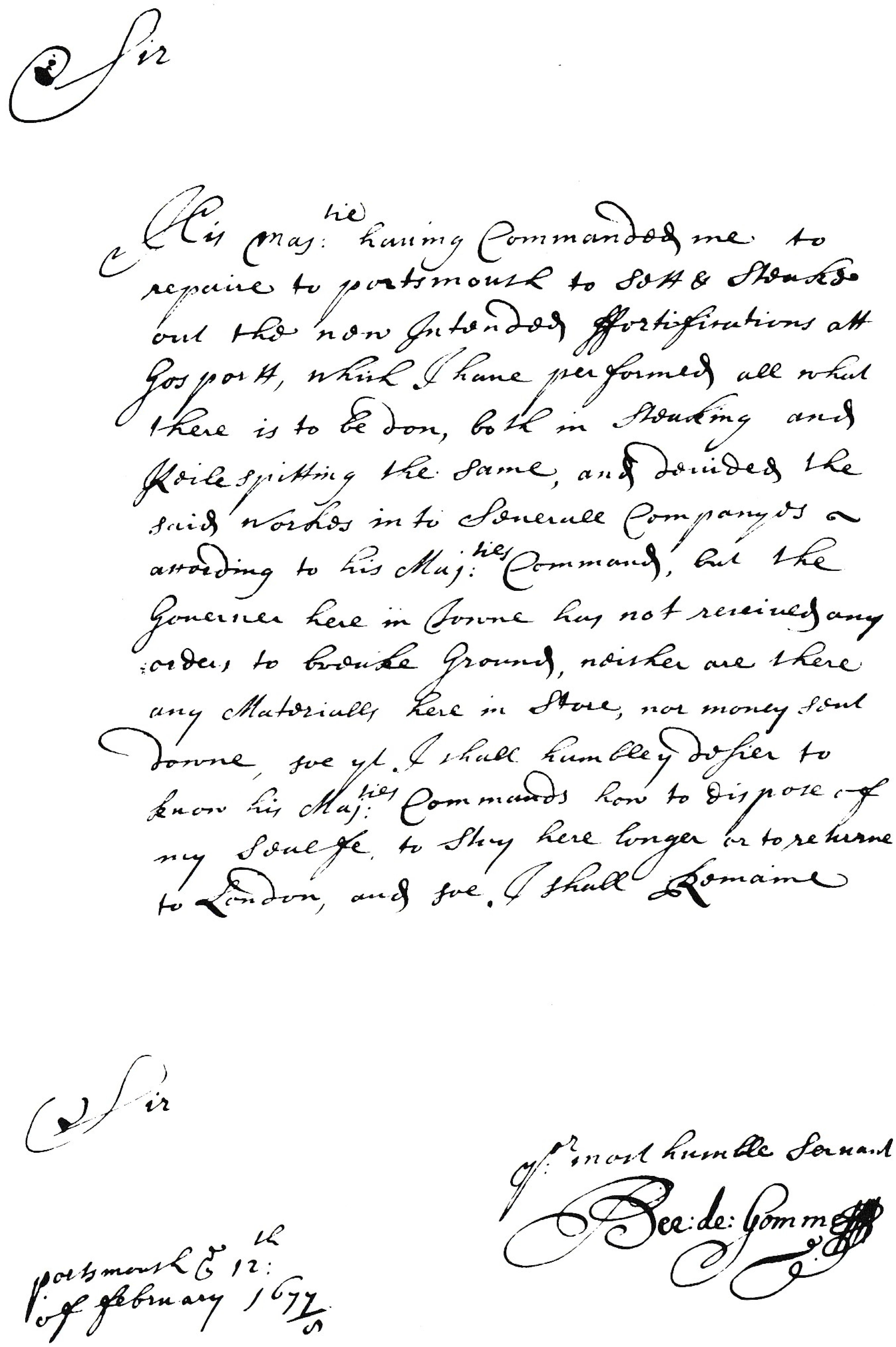
Figure 13 SIR BERNARD DE GOMME (Sketch by Rear Adm. R. W. Paffard based on BL Maps 4 TAB 48.)

rampart without revetment would last well if its slopes were not too steep and were carefully turfed, and cannon-balls would bury themselves in it without throwing up splinters; if it was badly constructed it would deteriorate rapidly. The Gosport Lines at all stages had very little revetment. A wrong impression can be gained from the high brick retaining wall near Holy Trinity Church and that near Mumby Road, as these were built in the final stages and were exceptional. The former probably resulted from the lack of space between the rampart and the churchyard and the latter was built in connection with the railway arch.[4]

The original Gosport Lines

Charles II placed the responsibility for constructing defences in this area (and in several others) on his Chief Engineer, Sir Bernard de Gomme, a Dutchman; after fighting for his native country against the Hapsburgs he had come to England in the reign of Charles I and was his Quartermaster-General in the Civil War. When working for Charles II he was assisted by Thomas Phillips, who in 1685 became Second Engineer to James II.[5] Phillips produced the drawings at Figs 20 and 21 and an elaborate plan of land in Gosport acquired for fortifications in 1677–78.[6]

In 1665 Charles II issued his formal instructions for the work at Portsmouth.[7] De Gomme soon started working on alternative plans for the Gosport defences. His main work here was the Gosport Lines, but he also built Forts Charles and James and the beginnings of Fort Blockhouse. We shall come to these later.



Sir

His Ma:tie having Commanded me to repaire to portsmouth to Sett & Stake out the now Intended ffortifications att Gosport, which I have performed all what there is to be don, both in Staking and Soile spitting the same, and devided the said workes in to Severall Companys according to his Ma:ties Command, but the Governer here in Towne has not received any orders to breake Ground, neither are there any Materialls here in Store, nor money sent downe, soe yt. I shall humbley desier to know his Ma:ties Commands how to dispose of my Selfe, to Stay here longer or to returne to London, and soe. I shall Remaine

Sir

Yr. most humble Servant

Ber: de: Gomme

portsmouth the 12th: of february 1677/8

Figure 14 LETTER BY DE GOMME reduced in size (PRO SP. 29/401(65).)

A number of de Gomme's and Phillips's original drawings for Gosport are in the Portsmouth Central Library,[8] but some of them, such as Fig. 15, differ considerably from what was actually built.

Following various preliminary designs for the Gosport Lines, one was signed by Charles II and fixed the line of the rampart; Fig. 16 shows it as built. It started at the Harbour with an asymmetrical demi-bastion in roughly the position of the present bastion behind Holy Trinity Vicarage. It continued in a zigzag fashion to where the Ritz Cinema now stands; outside it was the moat, the site of which is at present mainly occupied by car parks and the swimming bath. The cinema occupies approximately the site of a demi-bastion; its scarp crossed the present line of Walpole Road obliquely to the corner of Ordnance Road near the old Drill Hall. A bastion enclosed what is now the southern part of St. George Barracks Parade Ground. There was a demi-bastion in the Watercraft area, bringing the Lines back to the Harbour just short of

the present Royal Clarence Yard, which thus lies outside the original defended area.

On 29 January 1677/8 Charles II issued instructions for the work to proceed in accordance with de Gomme's plans.[9] On 12 February de Gomme wrote to the Secretary of State as follows (Fig. 14):

> 'Sir His Majestie having commanded me to repaire to Portsmouth to sett & steake out the new Intended Fortifications att Gosportt, which I have performed all what there is to be don, both in steaking and keilespitting the same, and devided the said workes into severall companyes according to his Majesties command, but the Governer here in Towne has not received any orders to breake ground, neither are there any Materialls here in store, nor money sent downe, soe yt I shall humbley desier to know his Majesties commands how to dispose of my sealfe, to stay here longer or to returne to London, and soe I shall Remaine
>
> Sir Your most humble servant
> Ber: de: Gomme
>
> Portsmouth ye 12th
> of february 1677/8'

On 24 February he wrote that he had 200 men at work but could not employ more owing to a temporary shortage of wheelbarrows.[10] On 16 April the work was said to be going on very vigorously .[11]

One of the working drawings for the Gosport Lines in the Portsmouth Central Library is a progress report of 13 April 1678. It gives the depth of the moat and the height of the rampart in each section as they then were. In the neighbourhood of Haslar Lake there were difficulties owing to very watery ground. But three sections of the rampart were turfed, and therefore presumably completed for the time being; their heights were $4\frac{1}{2}$ to 9 feet.

In a report of 9 May 1679[12] the Governor of Portsmouth said that the Gosport Lines were field works rather than fortifications, but that some guns would make them 'Tenable that the Townsmen and Countrey Militia with what Souldiers wee must spare from Portsmouth may defend the Towne from being insulted and burnt if any Enemy should land in Stoakes bay'. ('Insulted' means stormed without a siege.) He said that the moat was 30 feet wide and 11 feet deep, partly filled with water and partly dry, and the rampart 10 or 11 feet high without any parapet, the moat and rampart not having been made to their full breadth and height. The plan signed by the King had included ravelins in the moat, a covered way and a glacis, none of which had been provided. Moreover the 1679 report contained proposals by de Gomme for extending the works in an even more elaborate manner than is shown in Fig. 15; this itself is far more elaborate than the signed plan, though it is comparable with the Portsmouth defences existing at the time. But little more work seems to have been done.

On 5 & 6 September 1683 the King inspected the Portsmouth and Gosport fortifications with great deliberation. He walked round the whole of the Gosport lines and then supped with the Duchess of Portsmouth, his mistress. At Southsea, nearly at the end of his visit, he expressed himself as 'mightily pleased with all that is done, both there and every where, . . . and do declare it pity it should not be finished'.[13]

Gosport was now within the defended area of Portsmouth. There was a unified military command, with a Deputy Governor of Gosport under the Governor or Lieutenant Governor of Portsmouth.[14] In 1681–82 there was a wholesale revision of borough charters, including that of Portsmouth. The opportunity was taken to include Gosport within the boundaries of the borough of Portsmouth. But in 1688 all the charters of 1681–82 were repealed and Portsmouth reverted to an earlier charter, which did not cover Gosport.[15]

Charles II died in February 1684/5 and Sir Bernard de Gomme in November 1685. De Gomme was succeeded as Chief Engineer by Sir Martin Beckman. The latter in 1693, in the reign of William and Mary, submitted an estimate for further works on the Portsmouth and Gosport fortifications, and after listing what he regarded as defects in the construction of the Portsmouth ones added rather petulantly:[16]

> '. . . of which I often told the late King Charles and King James, but all what the late Chief-Engineer, Sir Bernard de Gomme, was pleased to do was approved of, as from an oracle, and I kept off from ever having anything to do with the fortifications, till I succeeded him, and then the fortifications were laid aside, and the army by land and the fleet were accounted the walls of England &c'.

This may explain why, although the Gosport work dragged on for some years after de Gomme's death,[17] it petered out with little more accomplished.

Adm. Sir George Byng, in his letter of 22 February 1707/8 quoted on pages 11 & 12, wrote of the Gosport Lines and of de Gomme's battery at Blockhouse Point (which we shall come to later) that they:

> '. . . in my opinion are so weak, and so exposed to the enemies, should they land in Stokes Bay or on that shore, that I think they may without opposition be masters of the works on that side, and when they are so, may bring the

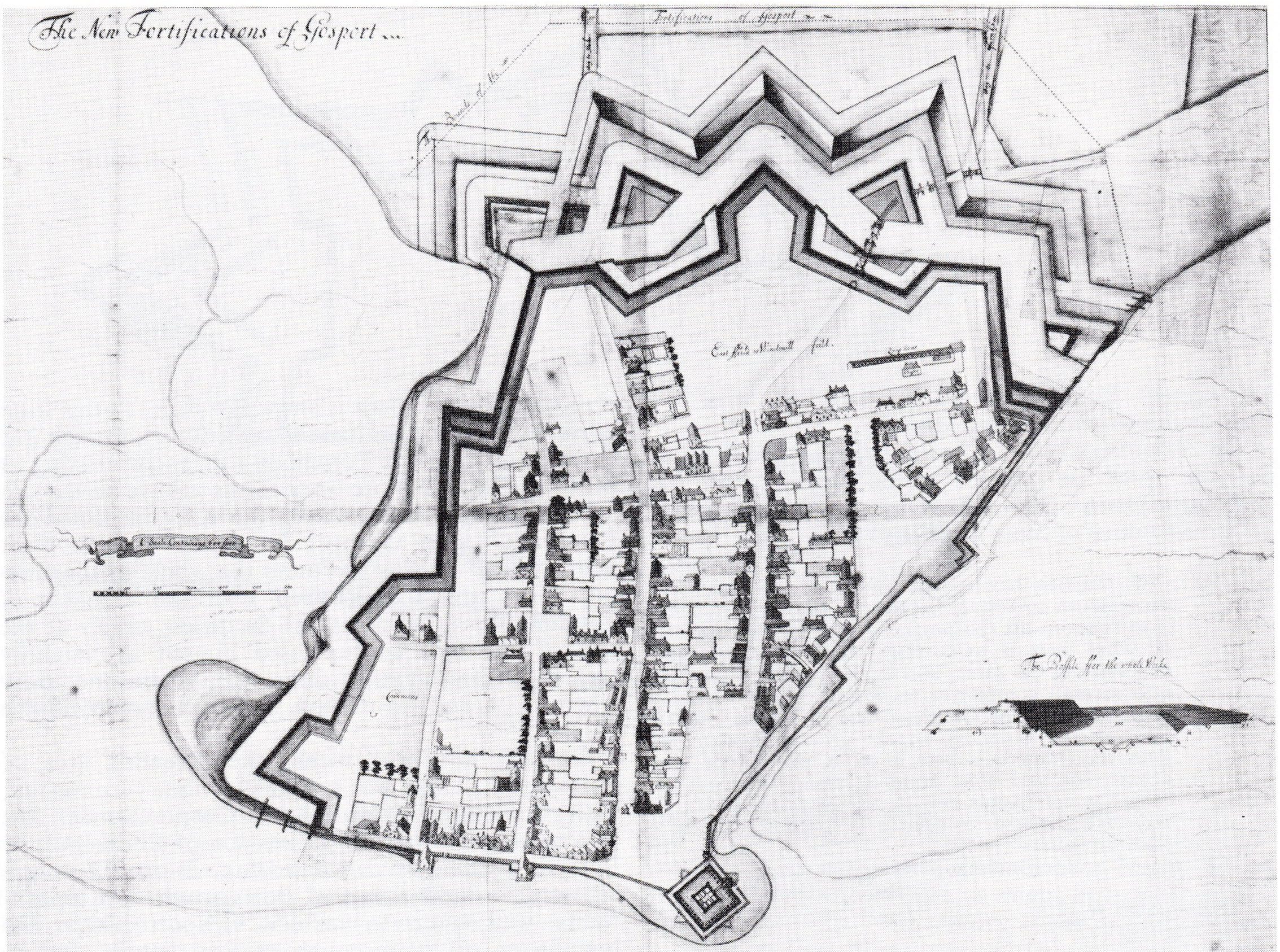


Figure 15 ONE OF DE GOMME'S LATER PLANS FOR COMPLETING THE GOSPORT LINES. The north is to the right of the plan. The scale represents 600 feet. (PCL Dartmouth Collection no. 6.)

> cannon, that are on those works, to be of very good use to themselves, nor do I see what should prevent them (if they bring mortars under cover of the works of Gosport) from bombarding and setting on fire with carcasses the works and houses with stores about the Dock, without being annoyed by any batteries that we may bring against them'.

(A carcass was an incendiary device which was then having a short period of military popularity.[18])

Byng went on to recommend that the guns should be removed from Gosport Lines and Blockhouse. Failing that, he recommended that three old ships, each with about half its normal guns[19] (presumably because they would have to fire only towards the Gosport shore) should be moored in the Harbour as floating batteries: one off Blockhouse, to make it useless to the enemy if they should occupy it, one at the lower moorings and one at the lower end of the upper moorings. He also advised that the inflammable stores in the Dockyard should be dispersed.

Government departments moved fast in those days. Only two days after Byng had written from Portsmouth, the Board of Ordnance in London wrote to their Portsmouth representatives instructing them to implement his recommendation regarding the three ships. Their letter is still in the RN Armament Depot, Gosport.

The following month, on 20 March 1707/8, Talbot Edwards, a military engineer, wrote a report on the Portsmouth Defences.[20] He said that Gosport

> 'is highly necessary to be taken care of, else yt's but shutting the door on one side of the house and leaving the other open; for whoever are masters of that side the water commands the Harbour as much as Portsmouth, however the workes about this towne have never been finished; the moat therefore wants to be broader and deeper, sett with palizadoes and two sluces to it; the breaches made up, the ramparts enlarged, the parapetts raised and gunns planted on all the flankes; alsoe a new gate, a bridge and ravelling. Likewise a covered way. This what's necessary on the land side'.

On the Harbour side he recommended palisades, piles driven into the beach, and guard houses.

Forty years elapsed before anything much was done about this, but Talbot Edwards made another recommendation which did produce some action. This was that a defensive line should be constructed, with redoubts and batteries, to Priddy's Hard.

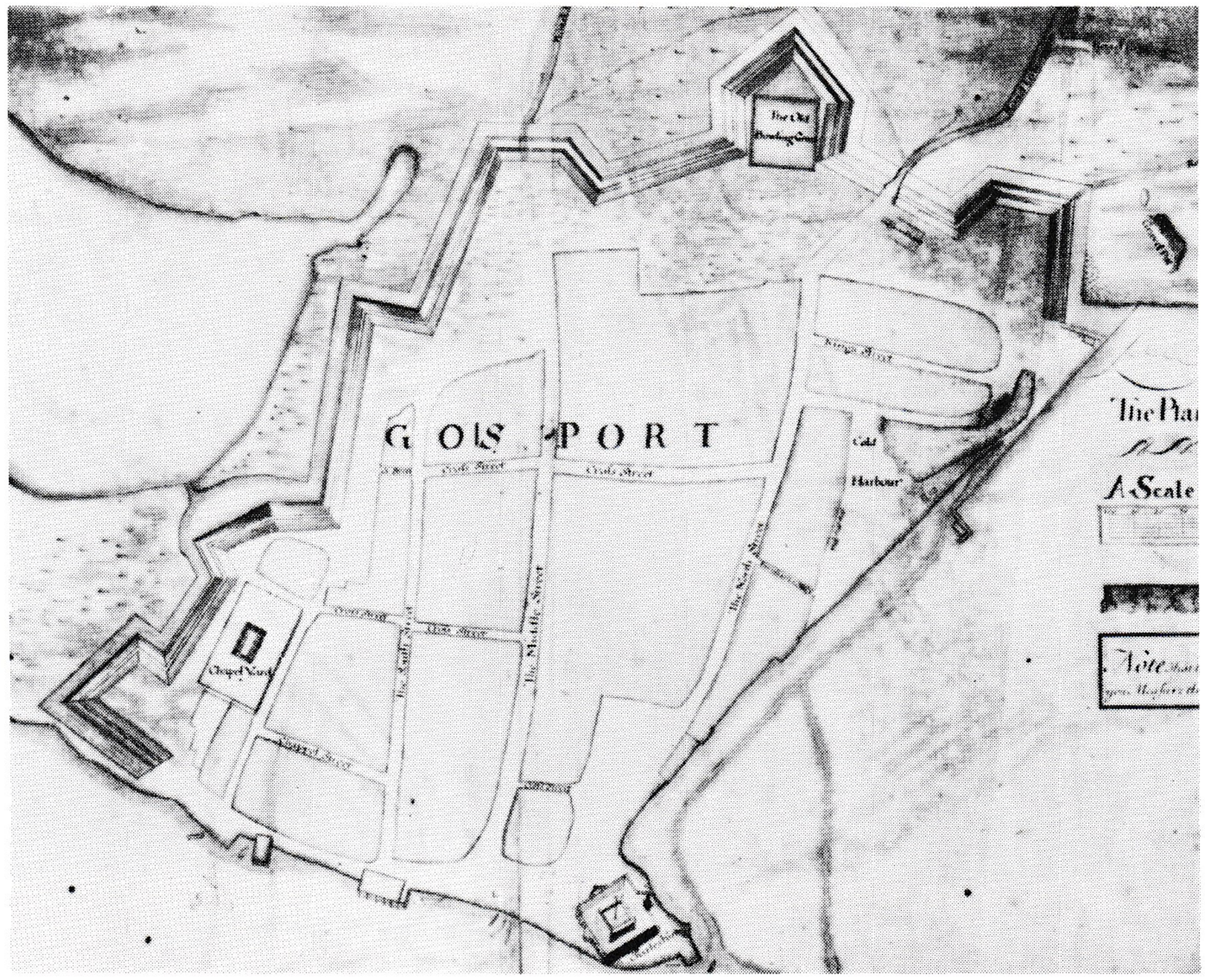


Figure 16 THE GOSPORT LINES 1716 (Bodl MS Gough Maps Antiq. 2 ff. 2v–3.)

Shortly after this two Acts were passed authorising compulsory purchase for the Portsmouth defences, and the Board of Ordnance in 1710 bought what is now the land on the west of Weevil Lane occupied by St. George Barracks and land on both sides of the Lane near Forton Lake.[21] But once again the work was delayed for forty years or so, and in the meantime Ordnance leased the land to the Player family, who owned the brewery which later became the Royal Clarence Yard.[22]

In 1726 the Lines were described as 'a mud wall . . . and a trench, or dry ditch, of about ten feet depth and breadth'.[23] If this was accurate, they must have deteriorated since de Gomme's time. The Lines at this stage were as shown in Fig. 16. They were later virtually reconstructed and extended. But we will deal with this later, and close this section with an extract from a 1736 account[24] of a walk from High Street to Forton:

> 'The warlike Bastions of the Town they pass,
> Now Clad like Troy, with inoffensive Grass'.

Fort Charles

At the same time as he built the Gosport Lines de Gomme built Fort Charles where Camper & Nicholson's main building now stands. Portsmouth Central Library have five of his working drawings and as these (unlike those of the Gosport Lines) are fairly consistent with each other, with later maps and with descriptions written in 1840[25] we can assume that they show it as built. (See Figs 17 & 18.) It had a stone tower about 60 feet square and 27 feet high, with two floors inside and a roof designed to support guns behind a parapet $5\frac{1}{2}$ feet thick. The drawings show the ornate wooden sentry boxes projecting from the four corners of the roof. Outside the tower was a platform about 140 feet square with another parapet for guns. About 8 feet outside this was a wooden palisade.[26] The entrance was on the north side.

The progress report of 13 April 1678 referred to above shows that work on the fort had started. Another of early 1679 shows that it was nearly finished.[27]

During the confusion of the Revolution of 1688 the Army in the Portsmouth area supported James II and occupied Fort Charles. The Navy tended to support William of Orange. Admiral Lord Dartmouth sent a party of sailors with plenty of money to loaf around Fort Charles apparently intent on drinking. The soldiers invited them in and they seized the fort.[28]

Adm. Sir George Byng, in his 1707/8 letter quoted on pages 11, 12 & 17, said of Fort Charles and Fort James (see below):

> 'As for the two little forts on the Gosport side, they are simple fortifications; one of them may be taken sword in hand, as the other may be at half tide, in the condition they are in now are of no use, the platforms of the upper works so decayed they will not bear the guns in the carriages, which are all to pieces, and the guns out of the carriages laid on the top of the parapet, which (could they be brought to fire) would be but once e'er they fell'.

Talbot Edwards, in his letter quoted above, said that these two forts 'are mighty well scituated to defend the mouth of the Harbour, where 20 or 30

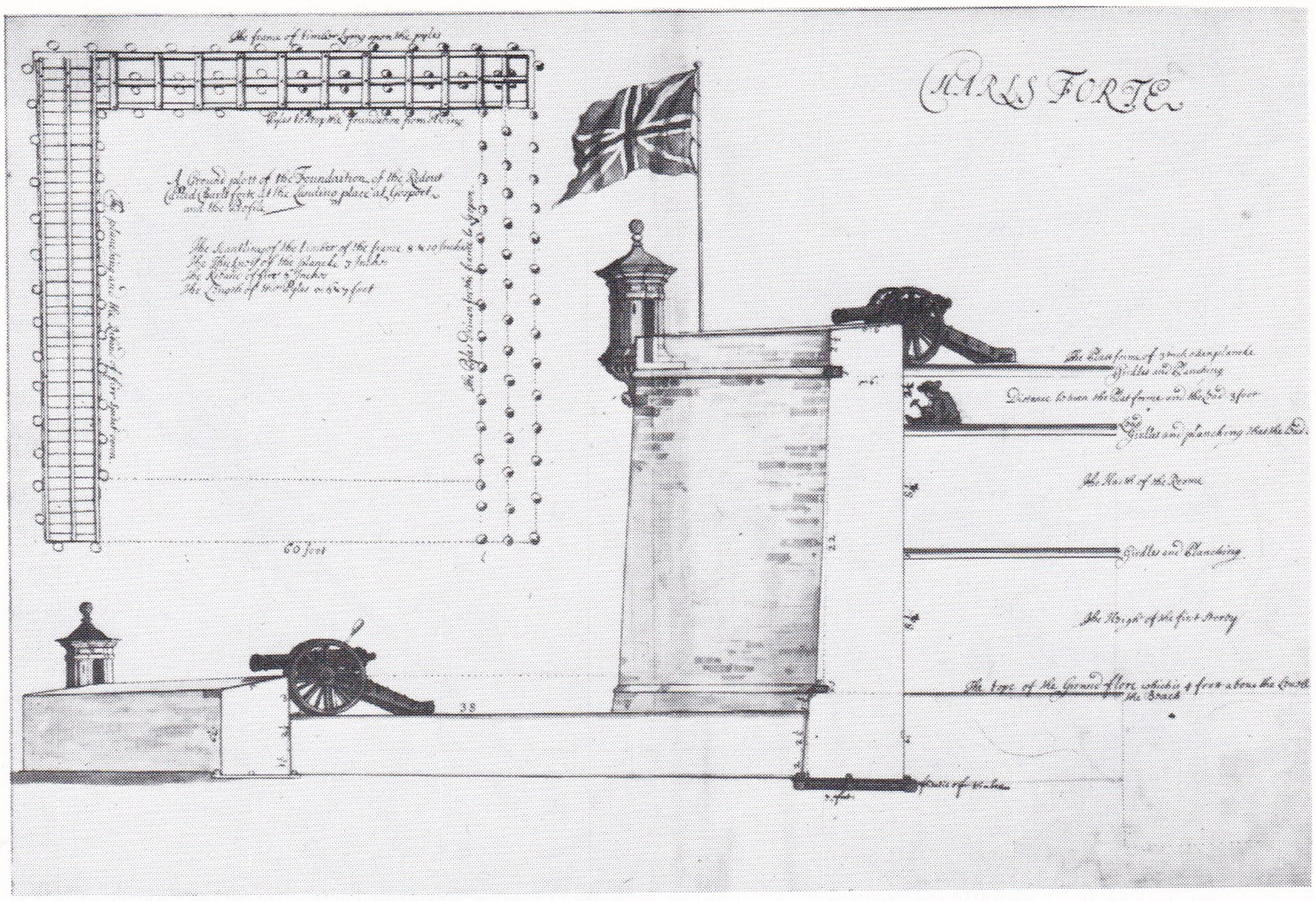


Figure 17 DESIGN FOR FORT CHARLES (PCL Dartmouth Collection no. 18.)

Figure 18 FORT CHARLES FROM THE SOUTH EAST 1840 (PCM water-colours by R. H. C. Ubsdell no. 26.)

canon may be fired from them into the bow of any ship that enters'; also that Fort James 'stands on such a scituation as might be very prejudicall to the town and dock were an enemy master of it'. He recommended various improvements, which do not seem to have been carried out.

In 1742 there was an order that the two guns in Fort Charles and the two in Borough Fort (Fort James), which were covered over with weeds and of no use there, should be returned to store,[29] but in 1840 it was said that there had been guns mounted in Fort Charles within living memory. In 1756, when there was an influx of troops into the area, Fort Charles was used as accommodation.[30]

By 1769 three private individuals had put workshops, storehouses and a saw-pit on to the platform

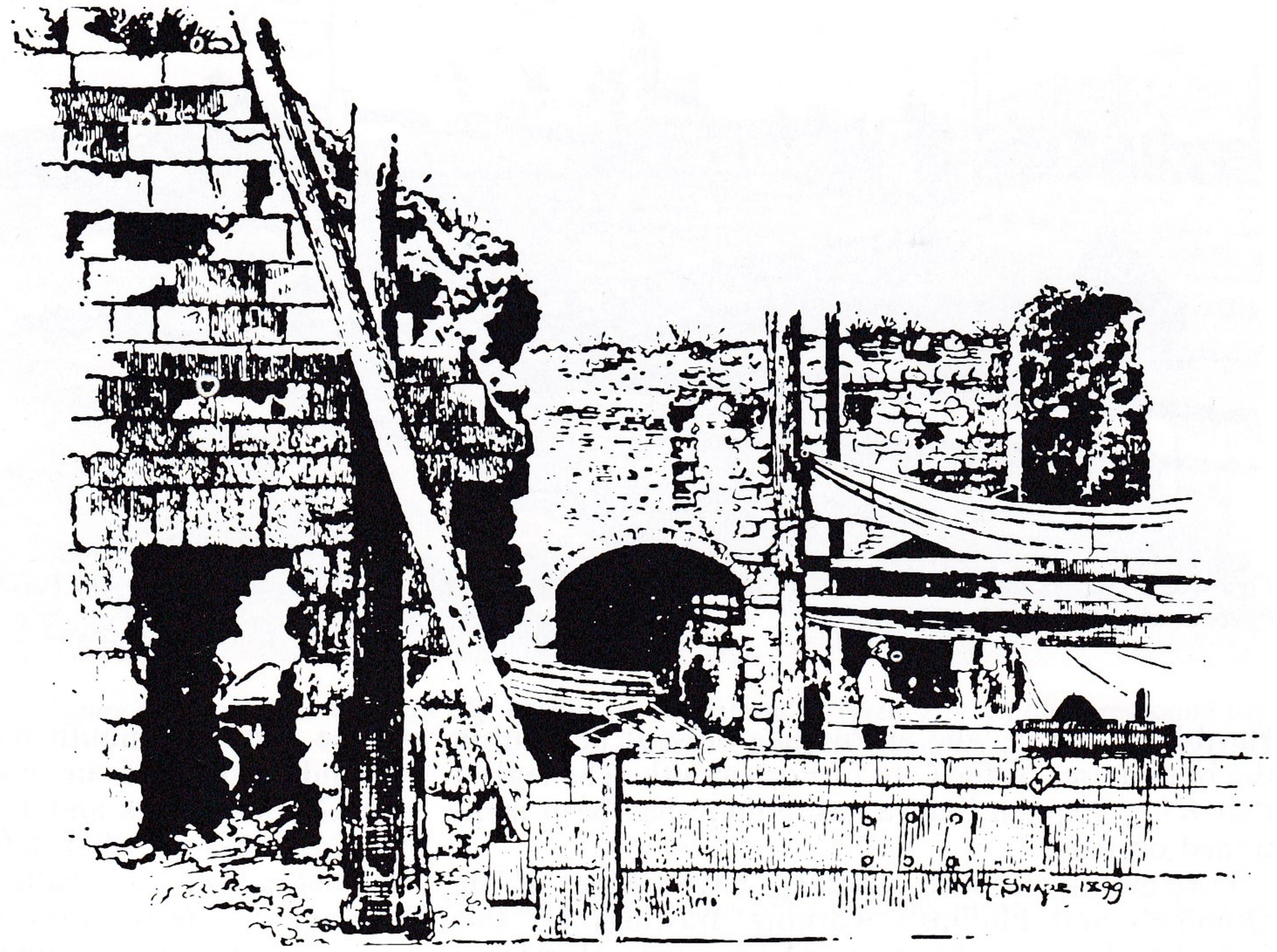


Figure 19 RUINS OF FORT CHARLES 1899 (W. G. Gates, *History of Portsmouth*, Charpentier, Portsmouth, 1900, p. 636; by William Snape.)

Figure 20 DESIGN FOR FORT JAMES (PCL Dartmouth Collection no. 9.)

of the fort without proper authority.[31] By 1778 the fort was, partly at any rate, used as a beer-house.[32] Later the brewer who rented it erected the Castle Tavern outside it and transferred his business there.[33]

By 1828 the fort was in ruins.[34] By 1840 it had been leased by Mr. Camper, yacht builder.[35] There were massive ruins still standing in 1899 (Fig. 19), but today the site is covered by the concrete floor of Camper & Nicholson's main building, and the only visible reminder of the fort is the name of the Castle Tavern.

Fort James

De Gomme also built a fort, known as Fort James, on Burrow Island (also called Rat Island). This is a steeply-rising and now heavily overgrown island off the Royal Clarence Yard, connected with Priddy's

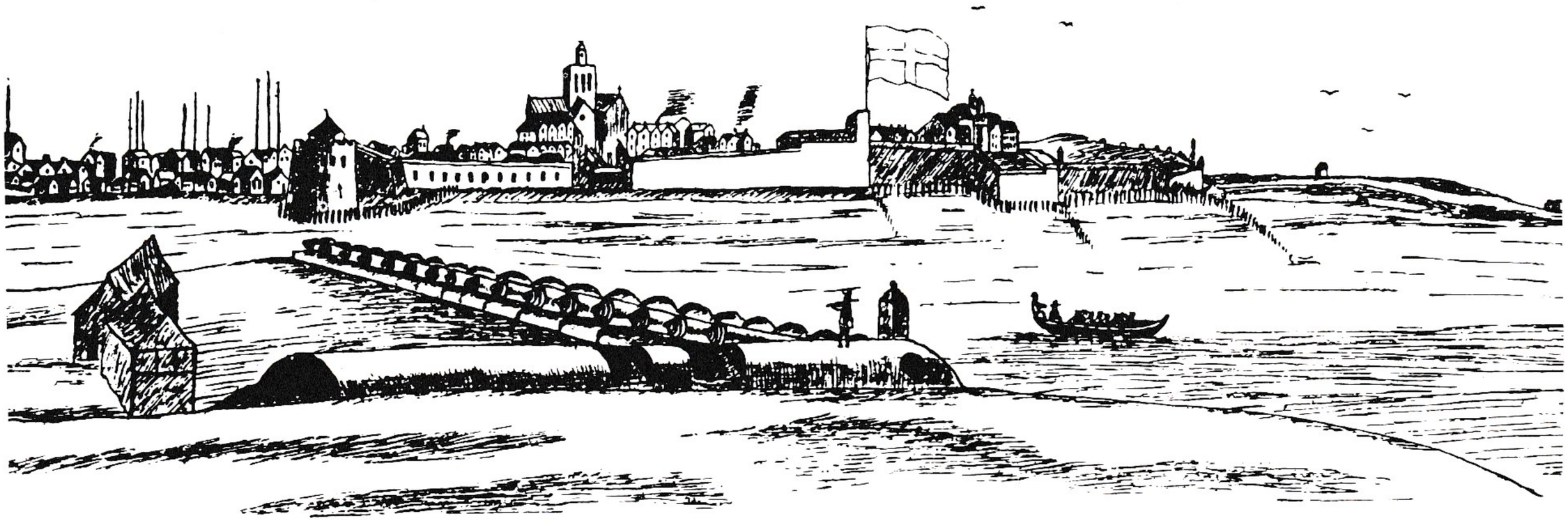


Figure 21 DE GOMME'S BATTERY AT BLOCKHOUSE POINT 1689 (W. G. Gates, *History of Portsmouth*, Charpentier, Portsmouth, 1900, p. 312.)

Hard by a spit of land at low tide only. It lies within the boundaries of the City of Portsmouth. The legend that King Stephen built a castle there has been mentioned on page 7.

Portsmouth Central Library have three of de Gomme's and Phillips's working drawings for this fort. (See Fig. 20.) Abandoning an earlier plan for a parapet with embrasures all round the island and a square keep in the middle,[36] he built a smaller version of Fort Charles. It had a tower 46 feet square and about 19 feet high; this consisted of a ground floor, and a roof for guns with a parapet and with sentry boxes at the corners. Outside was a platform about 110 feet square with another parapet. Beyond this the ground fell away on the east and west sides, but on the north and south sides there were dry ditches.

Although the purchase of the site was not completed till 1679,[37] the fort was almost finished by February 1678/9.[38] We have already noted its sorry state in 1707/8 and 1742.

Several plans of the Gosport defences of the 1750s show Fort James with an entirely different shape – a parapet with a straight face towards the Harbour and a polygonal face towards Weevil, without any central square tower.[39] It seems that this represents a proposed rebuilding which never took place; one of these plans is clearly coloured to show it as a work not completed,[40] and later plans mostly show the original square layout. Possibly, the intention being to prevent the enemy from occupying the Weevil and Priddy's Hard shore, the idea was dropped in favour of the extension of the Gosport Lines to Priddy's Hard which took place in about 1758 and rendered it obsolete.

The fort was a ruin by 1800[41] and was partly demolished in 1827.[42] None of it now remains above ground.

It has been rather improbably suggested that the name of the Wheelbarrow Castle inn on Southsea Common, now the Wheelbarrow, was a facetious corruption of Borough Castle, i.e. Fort James.[43]

Fort Blockhouse

It seems that by the time of de Gomme the Blockhouse at the Harbour mouth had disappeared and only a mound marked the site of Lymden's Bulwark. As with the Gosport Lines and Fort James, de Gomme had varying ideas on what defences to build in this area. In 1666 a fort 'of 2 halfe Bastions towards the Land side and 2 halfe Bastions towards the Water side' was marked out on the ground in the presence of Charles II.[44] Also in the 1660s de Gomme produced two plans for the Portsmouth defences showing different outlines for a fort at Blockhouse, neither of which quite fits the above description.[45] But in 1667 he built there a simple battery, as distinct from an enclosed fort.[46] This needed repair in 1668 and again in 1679.[47] It may have been rebuilt at some stage as there are discrepancies in the number of embrasures. On a plan of 1668 there is superimposed, on the outline of a proposed fort, a battery for about 10 guns facing south-east, out to sea, and two or three facing south-west, towards Haslar.[48] De Gomme also produced the delightful sketch at Fig. 22 with 12 or 13 guns facing south-east and three south-west. The eventual outcome was the battery shown at Figs 9 and 21, with 17 or 18 guns facing south-east and two south-west.

When Charles II sailed into the Harbour on 5 September 1683 to inspect the fortifications (see page 17), the Blockhouse battery fired a salute and one of the guns exploded, killing the gunner. The King visited the battery the next day.

In 1700/01 de Gomme's successor, Sir Martin Beckman, proposed to build elaborate works facing south-west towards Haslar.[49] Nothing much was done for several years, even though the War of the Spanish Succession started in 1702.

We have already noted, on pages 17 and 18, Adm. Sir George Byng's derogatory remarks of 22 February 1707/8 about the battery at Blockhouse. Talbot Edwards in his report of 20 March 1707/8 wrote:

> 'Blockhouse Point . . . which tho' yt may be compared to an arme of the body for usefull scituation in comanding the maine entrance into the Harbour, yet has noe manner of defence. This work like the rest is all gone to ruine, being but slight at first, and throwne up in hast, soe when danger has been over, nothing more done, which is the only tyme to make such workes as they should be, and then they are lasting, and in more readyness to doe service'.

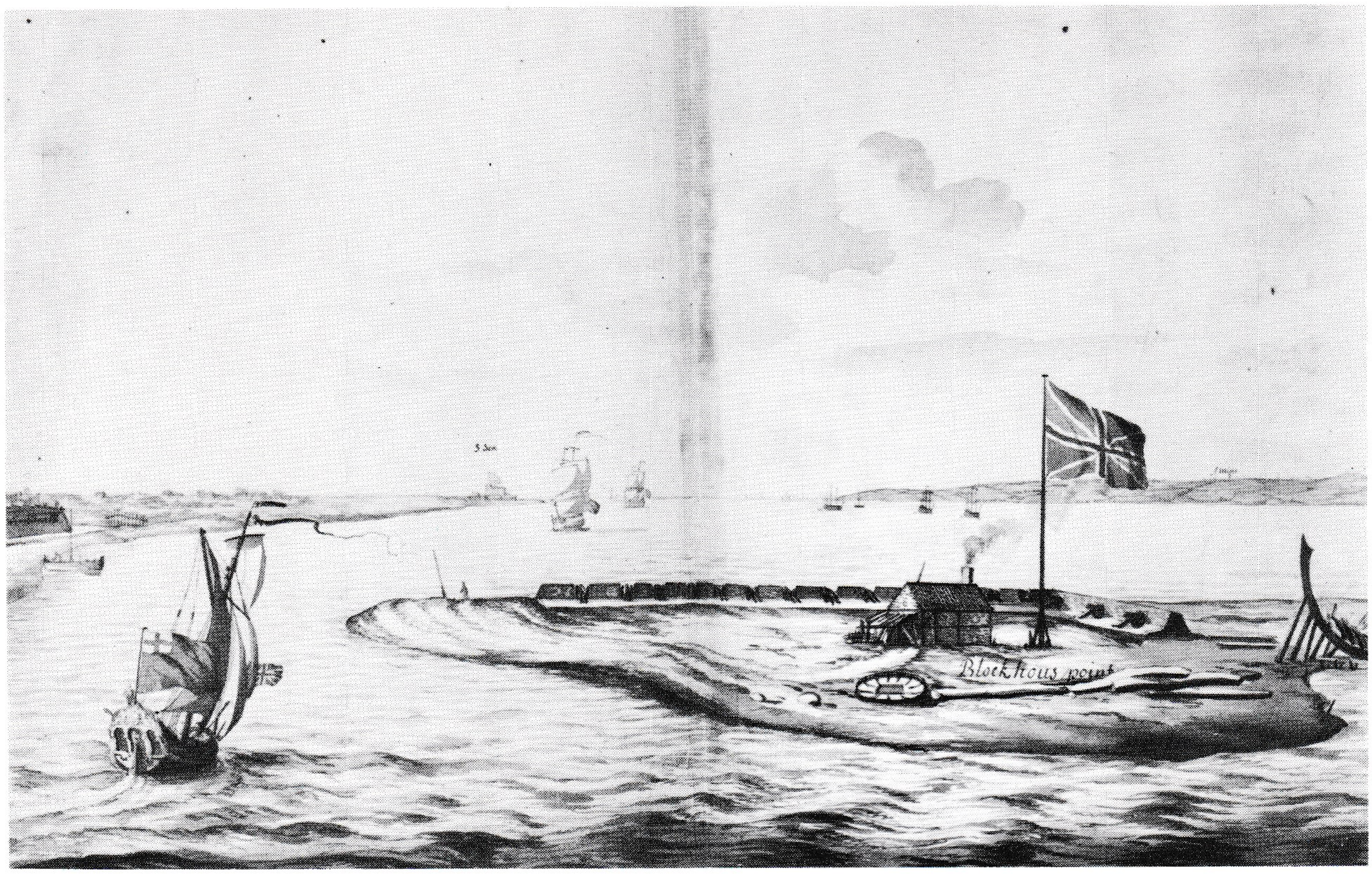


Figure 22 SKETCH BY DE GOMME FOR HIS BATTERY AT BLOCKHOUSE POINT, see pp. 12 and 22. (National Maritime Museum London, Dartmouth Collection.)

He went on to make a number of detailed recommendations for strengthening the position.

The reports of Byng and Edwards seem to have at last jolted the authorities into building the Fort. The main gate had a stone (still on the site, but worn), dating it as 1708,[50] and work was in full swing in 1710, when there is a list of 70 workmen employed at one time.[51]

After this work had been completed little was done for the rest of the century, and Figs 23 and 24 show the Fort much as it was throughout this period.[52] There faced south west a rampart with two demi-bastions and the gateway between them, a moat with drawbridge, a covered way and a glacis, the road out turning south through a salient in the covered way. At its south end the moat turned at right angles and ran between de Gomme's seaward battery and the sea. The north-west and north-east sides of the Fort were formed by a wooden palisade. At first this ran further out on the north-east side and had at the east corner a salient shaped like a bastion; some time between 1716 and about 1726 it was moved to the line shown on Fig. 23 with a forecourt to the beach at the corner.

The rampart facing south-west was more elaborate than that of the Gosport Lines, and resembled the Long Curtain which still survives, with its moat, at Old Portsmouth. A nearly vertical revetment rose from the moat to a wall behind which ran a sentry path; above this a grass scarp sloped up to the parapet. The green grass of the south demi-bastion was conspicuous from the sea.[53] The upper part of the rampart seems to have been simplified and reduced in height in the 19th century.

In a panorama of 1723 the Fort was given the name of Landgard Fort. East of it, on the beach, there stood in the late 18th century the gibbet on which the corpse of Jack the Painter was hung (Fig. 25).[54]

Once more the Blockhouse defences were neglected. An account of the Fort by a sailor who died in 1744, or his great uncle, reads as follows:[55]

> 'On the opposite Side of this narrow Water, is another Fort, with a Row of large Cannon, and a House and Barracks strongly guarded by an old *Irish* Gunner, and four or five Invalids – but no such thing as Ammunition (except Bread, Cheese, Small Beer, and Gin) has appeared there for many Years; the chief Use it is put to, is to accommodate the Ladies, who come there for the Benefit of the fresh Sea Breezes, or as a Place of retirement to recover a broken Constitution'.
>
> (Invalids were soldiers unfit for foreign service.)

There seems to have been some improvement by 1750, when it was reported that 24 guns were mounted and that they and their carriages were in excellent repair and fit for service.[56] But when there was an invasion threat in 1779 (see page 44) the palisades, gates, barriers, drawbridges and platforms were found to need repair and the accommodation for the guard to need improvement.[57]

In 1799, during the Revolutionary War with France, plans were submitted for strengthening the Fort.[58] The

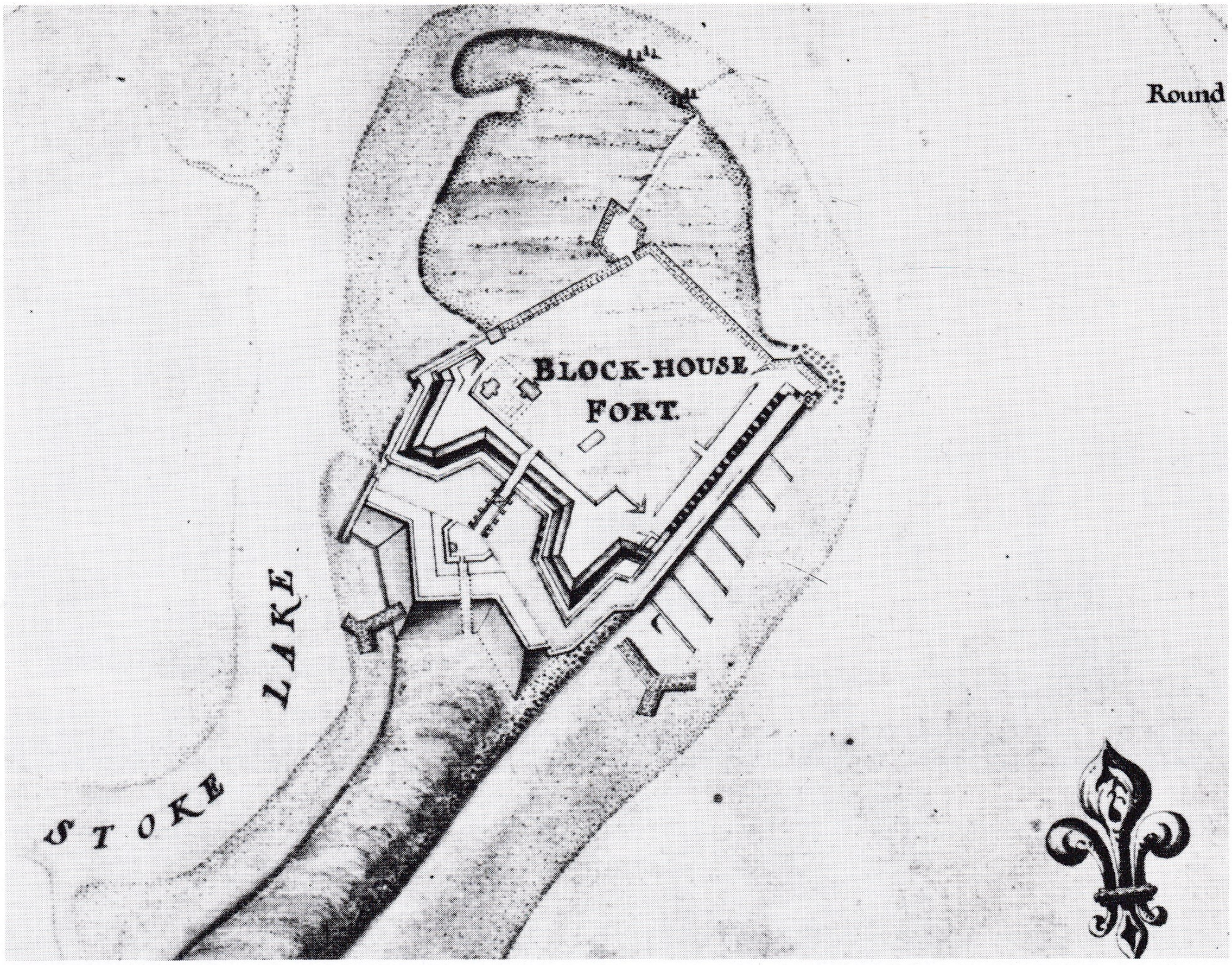


Figure 23 FORT BLOCKHOUSE MID 18TH CENTURY, see pp. 12 and 23. (Bodl Gough Maps Hampshire 9.)

west demi-bastion was to be widened in the direction of the Harbour, and this was done between 1817 and 1820.[59] De Gomme's seaward battery (which by this time had 19 embrasures) was to be strengthened, but still as an open battery; it is doubtful whether this was done, as before very long the gun positions were enclosed in casemates with curved vaults above.

Casemates, usually covered with earth, are a common feature of the 19th-century forts. In their simplest form, as on the west front of No. 2 Battery at Stokes Bay, they would provide overhead protection for the guns below and for their gunners. If made deeper from front to back they formed living accommodation; they could then provide support either for guns above (as at Fort Brockhurst) or for additional living accommodation above (as at Fort Monckton). By 1825 the seaward battery of Fort Blockhouse had been converted into a casemated battery with 13 embrasures,[60] as it is today. The main gate was reconstructed in 1813,[61] and it may be that the work on the seaward battery was done at the same time. Figs 28 and 29 show the Fort with the casemated battery, but with the old palisade to the right of it.

Some time between 1840 and 1845 the Fort was enlarged by moving its north corner in a north-westerly direction, making this corner about right-angled instead of obtuse-angled; the palisaded fore-court at this corner had disappeared by 1832.[62] The present stone north bastion was built projecting from it. There are embrasures for guns in casemates and for other guns above, mainly enfilading the north-west and north-east sides of the Fort. The lower embrasures were protected by dry ditches outside them, of which the western one survives.

A report of 1858 reads 'The water supply is derived partly from wells, partly from rain water. . . . The privy is dark, and was noisome at the time of our inspection. It is only flushed at spring tides. It would be a great improvement to convert this privy into a water latrine, and to flush it out daily'.[63]

In 1845 proposals were submitted for major improvements to the Fort.[64] Progress may have been slow, but a chart of 1858[65] and a plan of 1863 (Fig. 30) show the Fort substantially in its final state. To provide for guns above the sea-front casemated battery, the stone parapet was thickened and the terre-

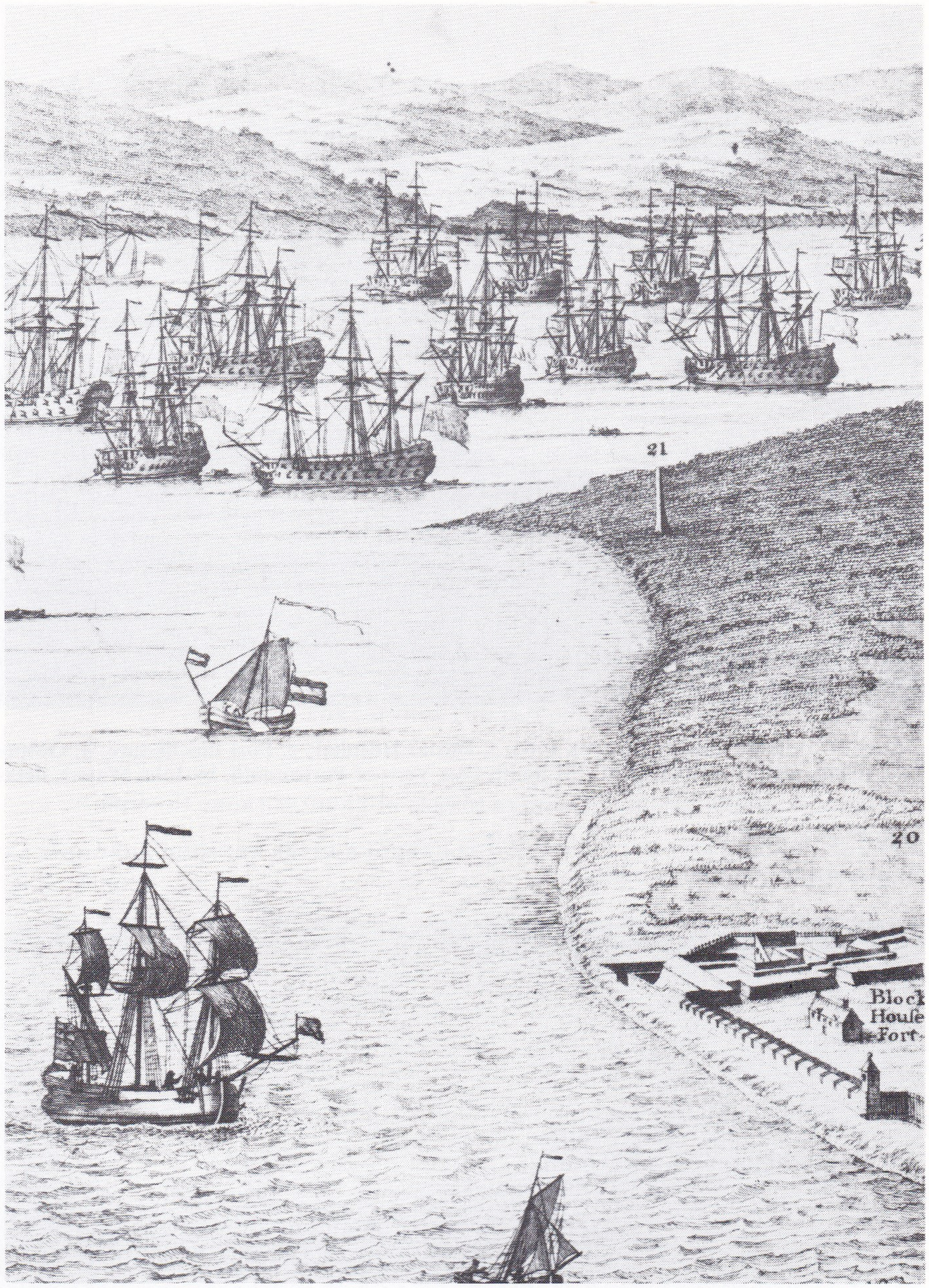


Figure 24 FORT BLOCKHOUSE AND GILKICKER TOWER 1729 (BL K. Top. XIV 86a, detail, reproduced by permission of the British Library Board.)

plein was extended at the rear by five feet. This extension was carried on brick arches higher than the original casemates and so can now be clearly distinguished, though some of these arches have been filled in to extend the casemate accommodation. The wooden palisade completing the perimeter was replaced partly by living accommodation and partly by a high wall, all loopholed. The junction between this wall and the sloping back of the west demi-bastion is still clearly visible.

The main gateway (Fig. 32) has been destroyed, the moat on that side of the Fort filled in and the glacis levelled. The moat behind the beach is still recognisable and is occupied partly by a swimming bath and partly by shingle. Apart from the gateway, the perimeter walls (Fig. 31) are generally intact; the interior of the west demi-bastion is preserved as a garden, with two expense magazines in it. Modern buildings of HMS *Dolphin* have been built around, and the Fort can hardly be seen except from Portsmouth sea-front and the open sea. This is a pity, as it has an interesting and varied perimeter, in origin 17th-century on the south-east, 18th-century on the south-west, and 19th-century on the north-west and north-east. Each of the other forts in the Gosport area was built over a relatively short period.

Figure 25 VIEW FROM SOUTHSEA 1765. 2, Haslar Hospital; 3, Fort Blockhouse; 4, Gosport; 5, Portsmouth. For the windmill and gibbet, see pp. 37 and 23. (PCM South East View of Portsmouth, by John Waters, detail.)

Figure 26 ACTEON FRIGATE ENTERING THE HARBOUR AFTER RUNNING AGROUND, LATE 18TH CENTURY. Fort Blockhouse on right. (Hants RO.)

Figure 27 HASLAR FROM BEHIND W DEMI-BASTION OF FORT BLOCKHOUSE IN THE 1830S (Robert Mudie, *Hampshire*, D. E. Gilmour, Winchester, c. 1840, Part II, facing p. 200; cf. Part I, Preface.)

THE INNER GEORGIAN FORTIFICATIONS

The Gosport Lines, Rebuilding

In 1748 the rebuilding of de Gomme's Gosport Lines began; it was to continue for over half a century. At first it was supervised by John Peter Desmaretz, Clerk in Ordinary to the Chief Engineer of Great Britain. Though based on London till 1763, when he went abroad, he did a great deal of work at Portsmouth and Gosport and was eventually buried in the Garrison Church at Portsmouth.[1] His epitaph on its ruined wall contains the words, reminiscent of de Gomme: 'Though born a foreigner he early adopted every generous sentiment of civil & religious liberty and exerted his active abilities for the service of this nation in quality of an engineer'.

By 1751 the rampart and moat had been enlarged and improved northwards from the demi-bastion roughly on the present cinema site and round to the Harbour just short of the present Royal Clarence Yard. Similar work along the remainder of the Lines to where they now end near Holy Trinity Church, and the construction beyond the moat of a covered way and a glacis, were contemplated from the start.[2] But then for several years the programme was repeatedly slowed down for financial reasons.[3]

By the end of 1752 the improvements had been extended in a south-westerly direction to just short of the present swimming bath; this extension is shown in Fig. 39. Here they ended for many years, except that a bastion in de Gomme's Lines west of Holy Trinity Church was removed and the plan of the Lines thereby simplified. De Gomme's progress report of 13 April 1678 referred to on page 17 shows that the wet ground had caused difficulty in building this part of the Lines; there were probably similar difficulties in maintenance.

In 1748, as part of the improvements, work was done on the two gateways through the ramparts, and unserviceable cannon were used as posts to prevent damage by vehicles.[4] It was intended to provide wooden gates in 1751, but this seems to have been postponed. The road to Fareham had had a gateway since de Gomme's time, in what is now the part of St. George Barracks south-east of the present intersection of Mumby Road and the ramparts. It seems that de Gomme had blocked the road to Alverstoke altogether, but that in about 1729 an opening was made for it in the centre of the demi-bastion on the cinema site, i.e. slightly to the south of the present Walpole Road.[5] In 1748 the gateway for Alverstoke was permanently established in the centre of the curtain between this demi-bastion and the bastion to the north, i.e. half way between High Street and North Street. In 1766 there was a valuation of oak gates which had been installed in this gateway,[6] suggesting that it was not completed till about then. The final form of the gateway at this point, which became

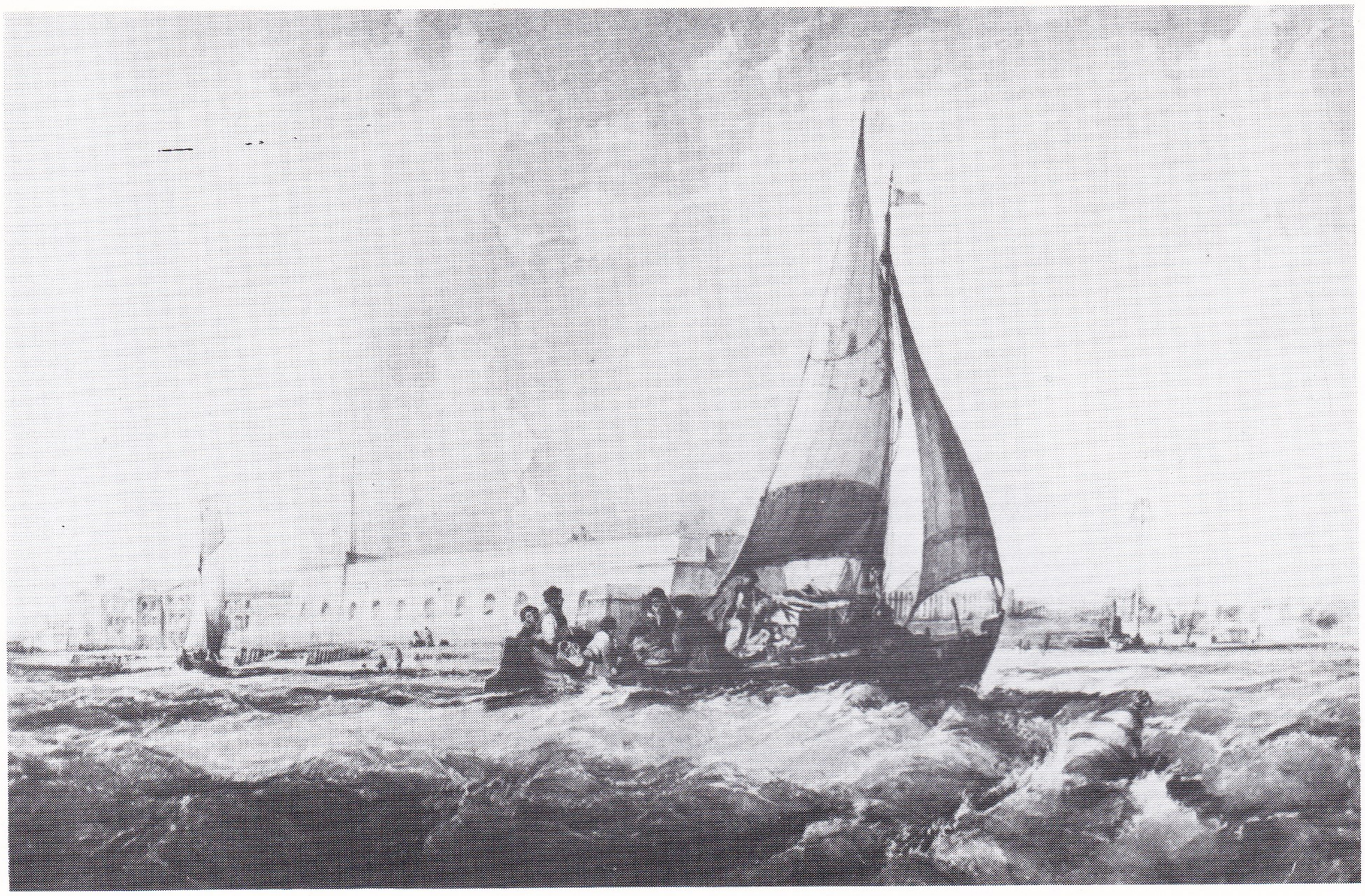


Figure 28 FORT BLOCKHOUSE EARLY 19TH CENTURY (PCM water-colour by George Chambers, 1803–40, retouched.)

Figure 29 FORT BLOCKHOUSE FROM CAPSTAN SQUARE PORTSMOUTH 1842 (Thomas Roscoe, *Summer Tour to the Isle of Wight*, Harwood, London, 1843, facing p. 123.)

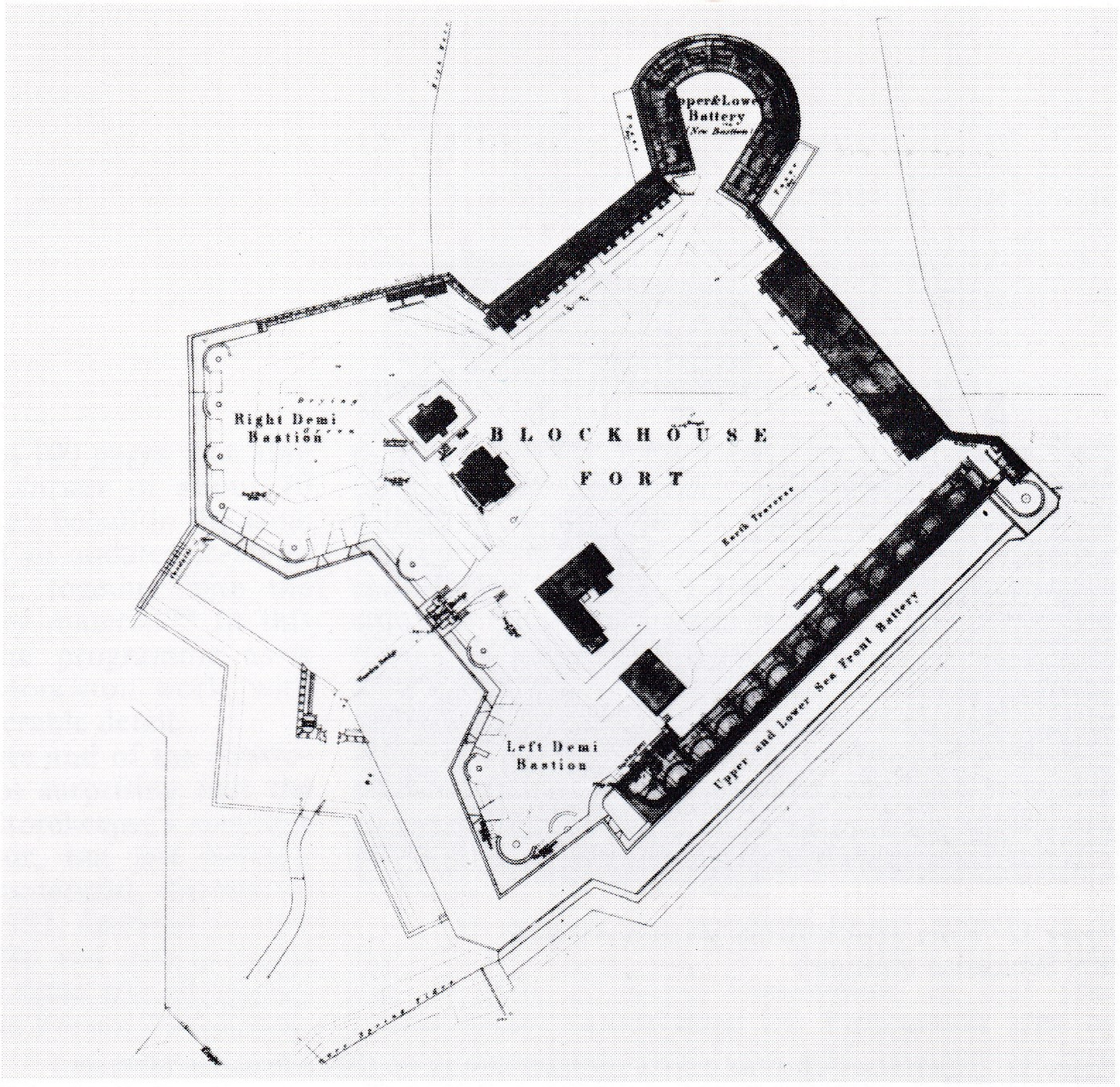


Figure 30 FORT BLOCKHOUSE 1863 (PRO WO. 78/609.)

Figure 31 FORT BLOCKHOUSE 1892. From top – SE, NE, NW and SW elevations. (PRO WO. 78/5028.)

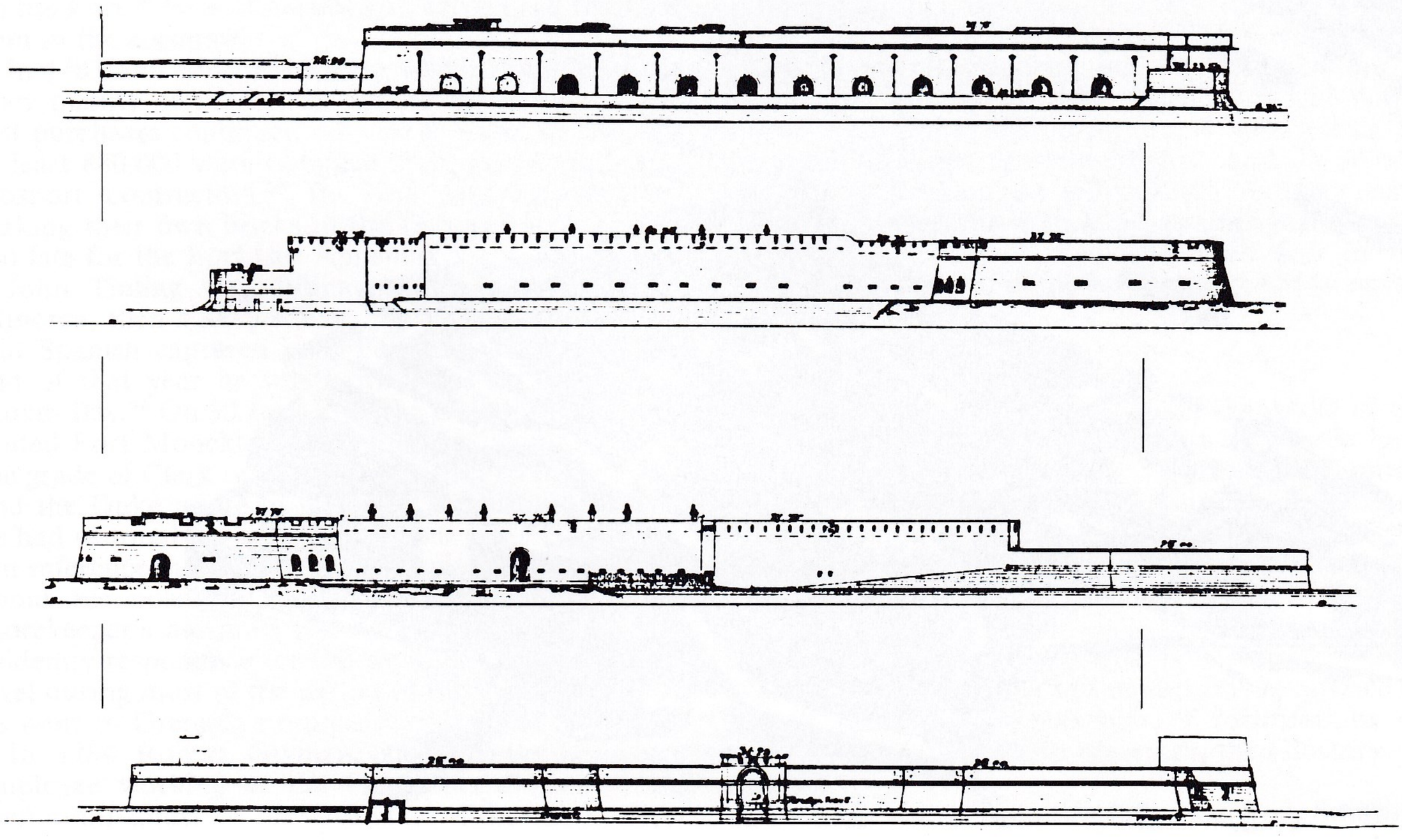
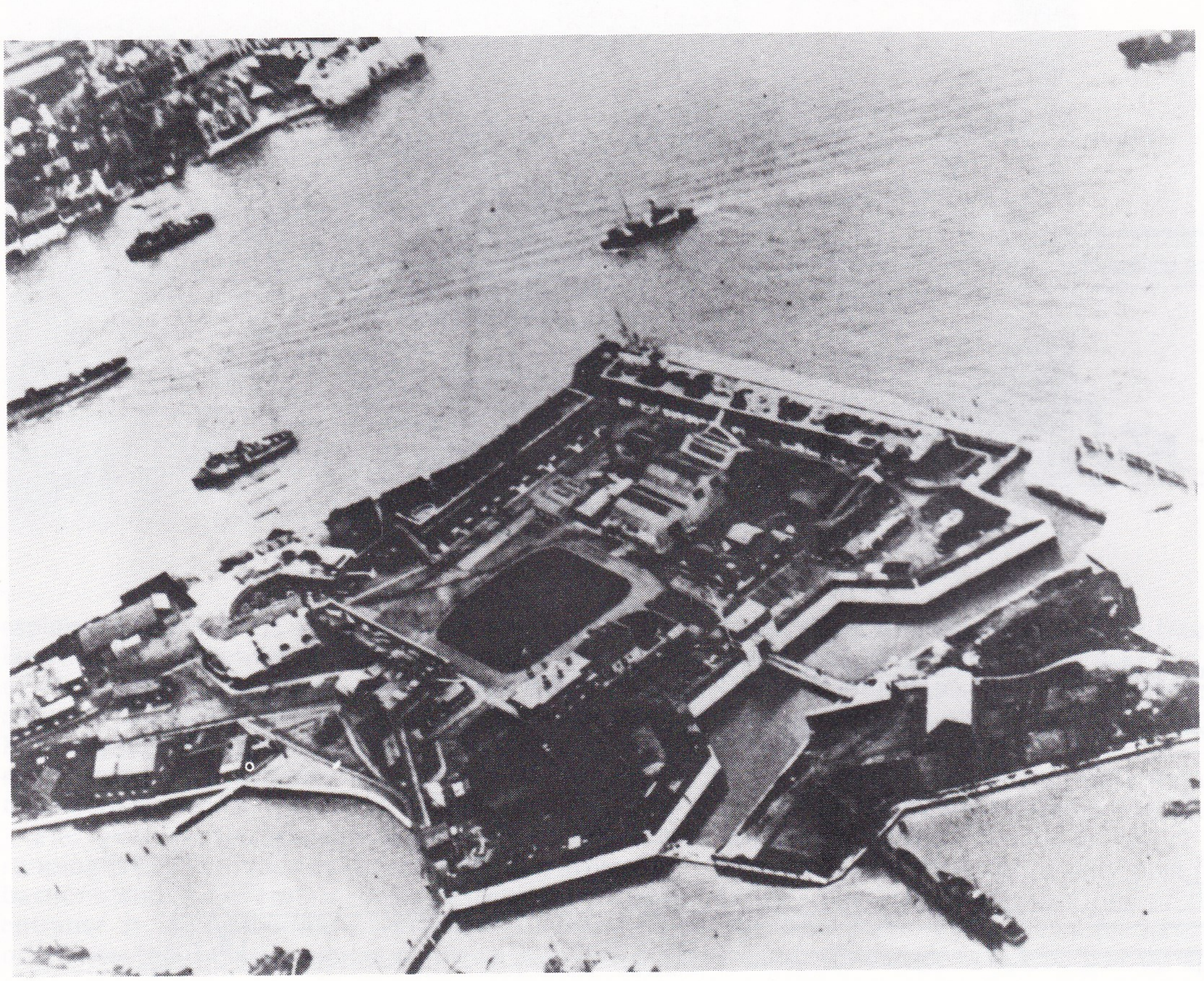


Figure 32 FORT BLOCKHOUSE MAIN GATE 1916
(RN Submarine Museum.)

Figure 33 FORT BLOCKHOUSE CIRCA 1918, see also p. 13. (RN Submarine Museum.)



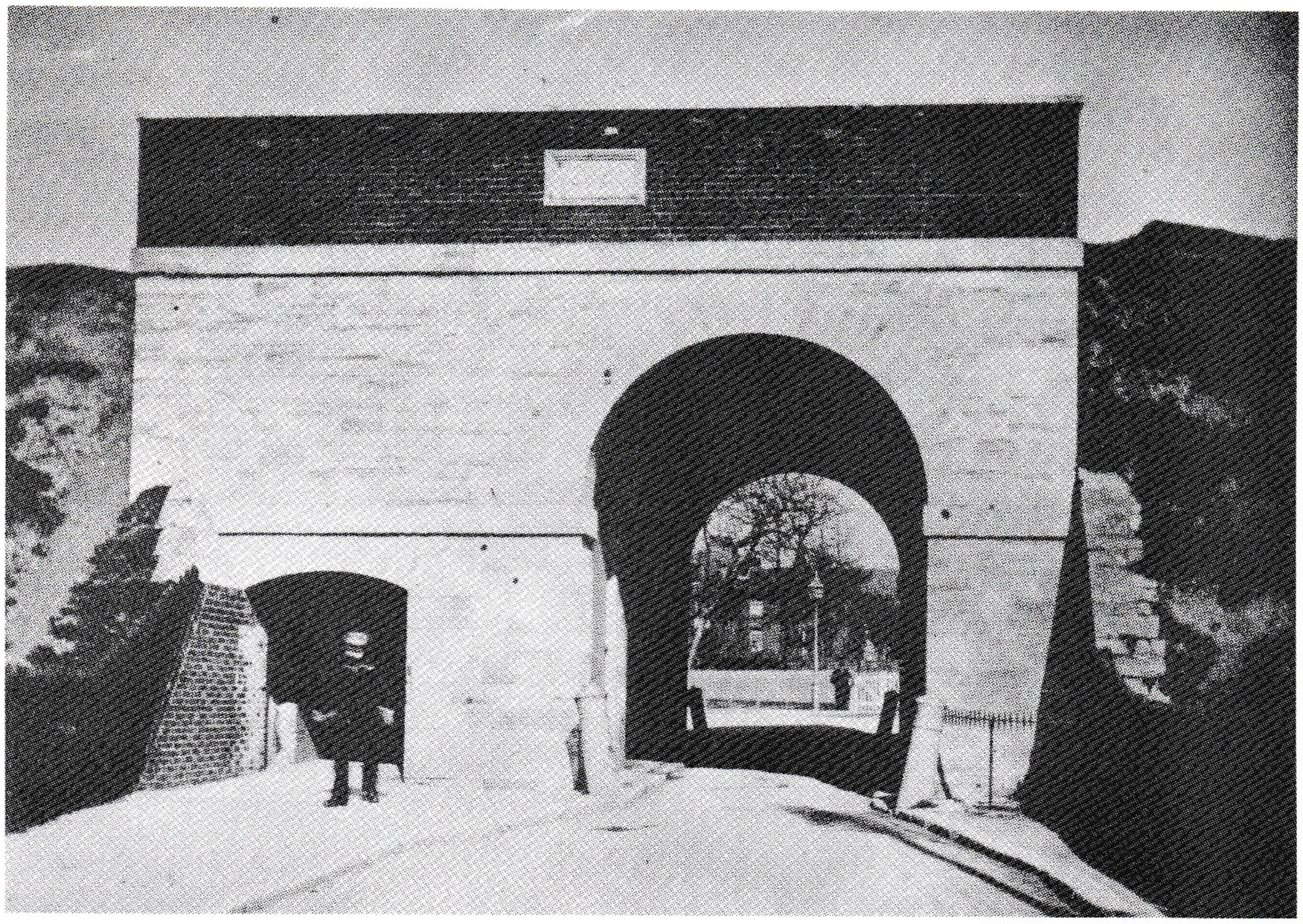


Figure 34 THE MAIN GATE FROM OUTSIDE (Gosport Society.)

known as the Main Gate, is shown in Figs 34 & 35. The keystones of its main arch were dated 1841.[7] The 1766 valuation had mentioned a wicket gate within one of the large gates, which implies that there was then no separate small archway. It may well be that the gateway was completely reconstructed, with separate arches for vehicles and pedestrians, in 1841; we shall see that there had been in 1840 a proposal on somewhat similar lines for another gateway (see page 38). The road out after crossing the moat by a drawbridge[8] bore left through a cutting in the glacis and joined the present course of Walpole Road just west of the Drill Hall.

The Gosport Lines, Completion

The next phase began in about 1757[9] and is shown in Fig. 36. A covered way and glacis were built outside the moat of the southern part of the improved section of the Lines. The north and east sides of the present Canoe Lake mark the outer edge of part of the glacis. The covered way and glacis ended outside the moat of the bastion in the area of the present St. George Barracks Parade Ground.

Northwards from this point there were built a rampart and moat roughly parallel with Weevil Lane and (not quite as first planned[10]) round the neighbouring portion of Priddy's Hard; they are still there, but the Weevil portion was later much improved. When they were being planned, the fear was expressed that the Weevil moat might interfere with the water in the well of the adjoining naval brewery.[11] At this time the magazine which became the RNAD had not been established at Priddy's Hard, and the ground there seems to have been fortified purely in order to prevent enemy artillery from occupying it and bombarding the Dockyard and the ships in the Harbour.[12]

Little work seems to have been done on the fortifications in the 1760s and early 1770s, but there was a development which affected the organisation of subsequent work. The Board of Ordnance were responsible both for fortifications and for the supply of ammunition. Following an explosion at Southsea Castle in 1759, the citizens of Portsmouth petitioned the King to remove the gunpowder stored in the Square Tower, at the end of their High Street, 'to such a Distance as His Majesty in His great wisdom shall think proper'.[13] The Board therefore in about 1770 built the Magazine on their vacant land between the Priddy's Hard part of the new Lines and the Harbour. As the result, the Board from then on had its own staff on the Gosport side of the Harbour; these gradually took over the administrative and financial responsibility for the defence works here,[14] though the military planning of them remained with the Commanding Engineer at Portsmouth, except for a few years in the 1780s (see page 46).

The first Storekeeper at Priddy's Hard was William Bache, whose tomb is in Alverstoke Churchyard.[15] The first Ordnance Clerk of Works to be based in Gosport rather than Portsmouth was probably John Tinling (see page 47).

In 1768 a French spy did a reconnaissance, and in a map drawn from memory afterwards he described the Priddy's Hard Line as a small work in very bad condition intended to cover the Dockyard; he missed the Weevil part of the Lines altogether.[16]

The next phase began with a crisis in 1779. This crisis and subsequent developments are dealt with on pages 44–46 in connection with Fort Monckton and its temporary predecessor. The gates, platforms and palisades of the Gosport Lines had to be repaired, as had the parapet south of Forton Lake where it had

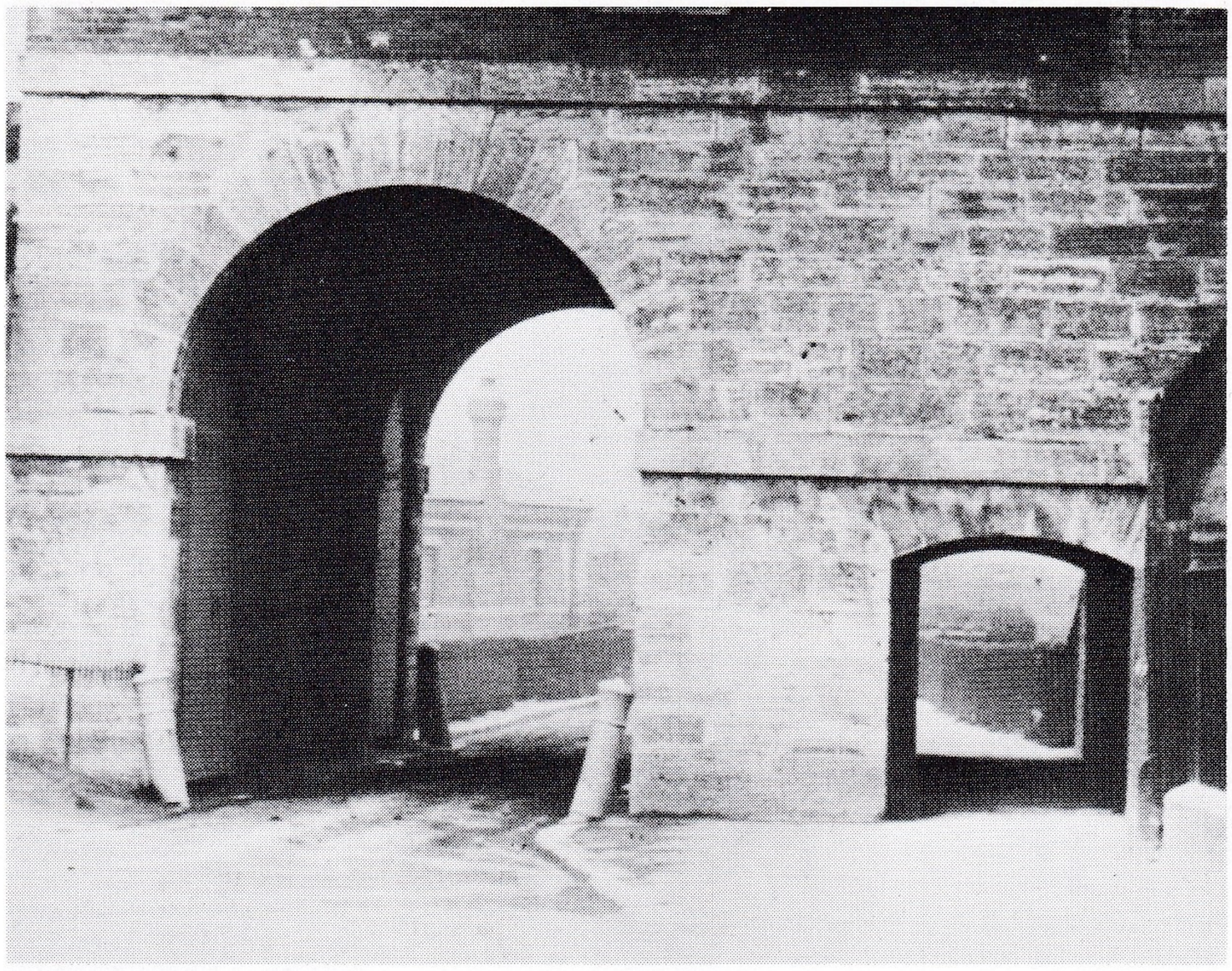
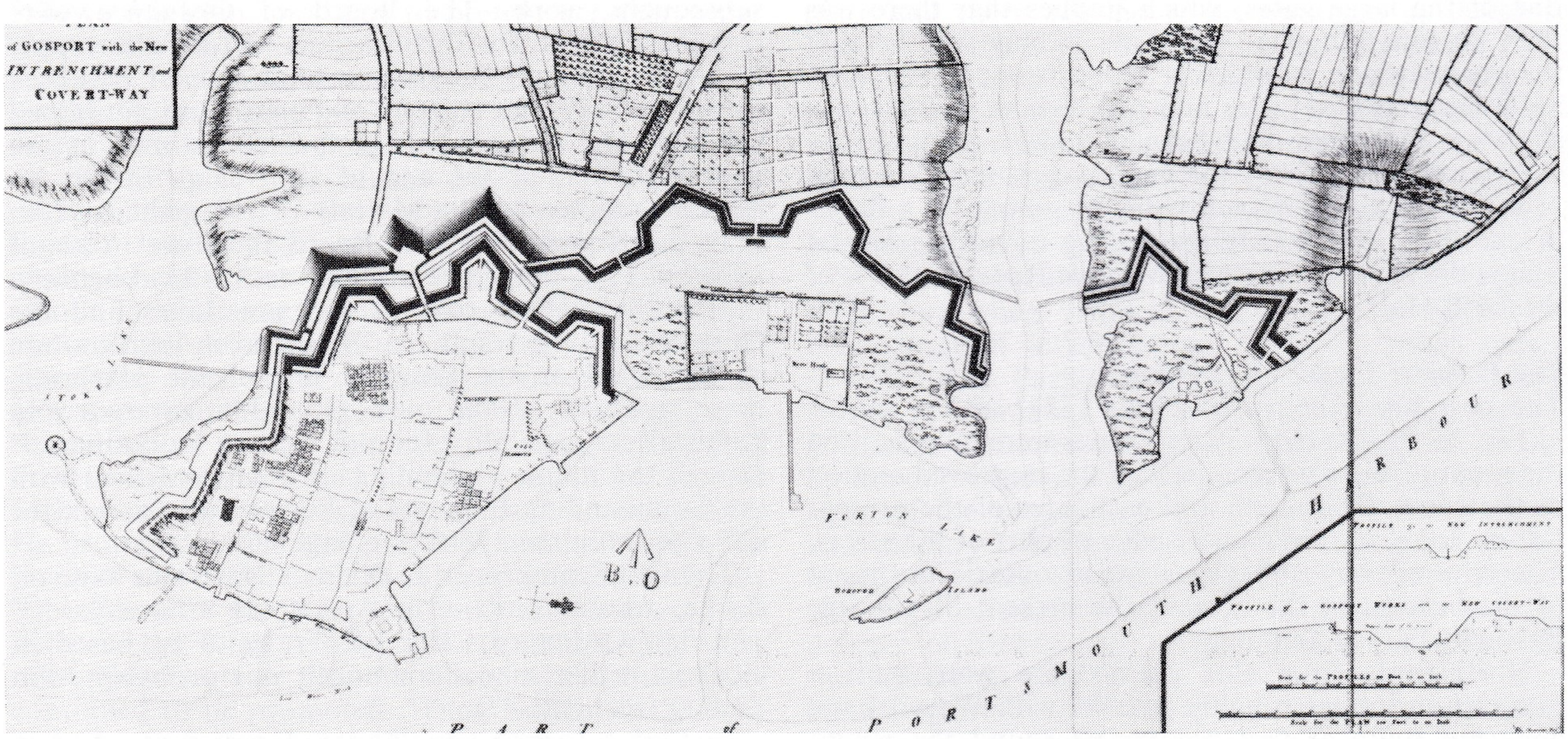


Figure 35 THE MAIN GATE FROM INSIDE, showing Drill Hall, now Driving Test Centre. (Film strip by Mr. G. Rook in possession of Mr. R. J. Lawrence.)

Figure 36 THE GOSPORT LINES 1758 (PRO MPHH 283/2.)



been 'a little hurt by the cattle getting over'.[17] In the ensuing years the rampart and moat near Weevil Lane were improved. They were given a covered way and glacis, though the width of these was somewhat restricted where the corner of Forton Road and Spring Garden Lane impinged on them.[18] The reconstructed rampart was directly connected with the older one, instead of starting from the covered way; thus the bastion in the St. George Barracks Parade Ground area was considerably enlarged. The new layout can be seen on Figs 38 and 46. From the enlarged bastion to the Harbour in the Watercraft area the original Lines were demolished. It seems, however, that part of the rampart by the Harbour may have survived for a time, as Fig. 38 shows 'Fort, remains of' at this point, as there was a Brandy's Mount School nearby in 1821,[19] and as until World War II Mount Street ran from this area to Clarence Square. There was a

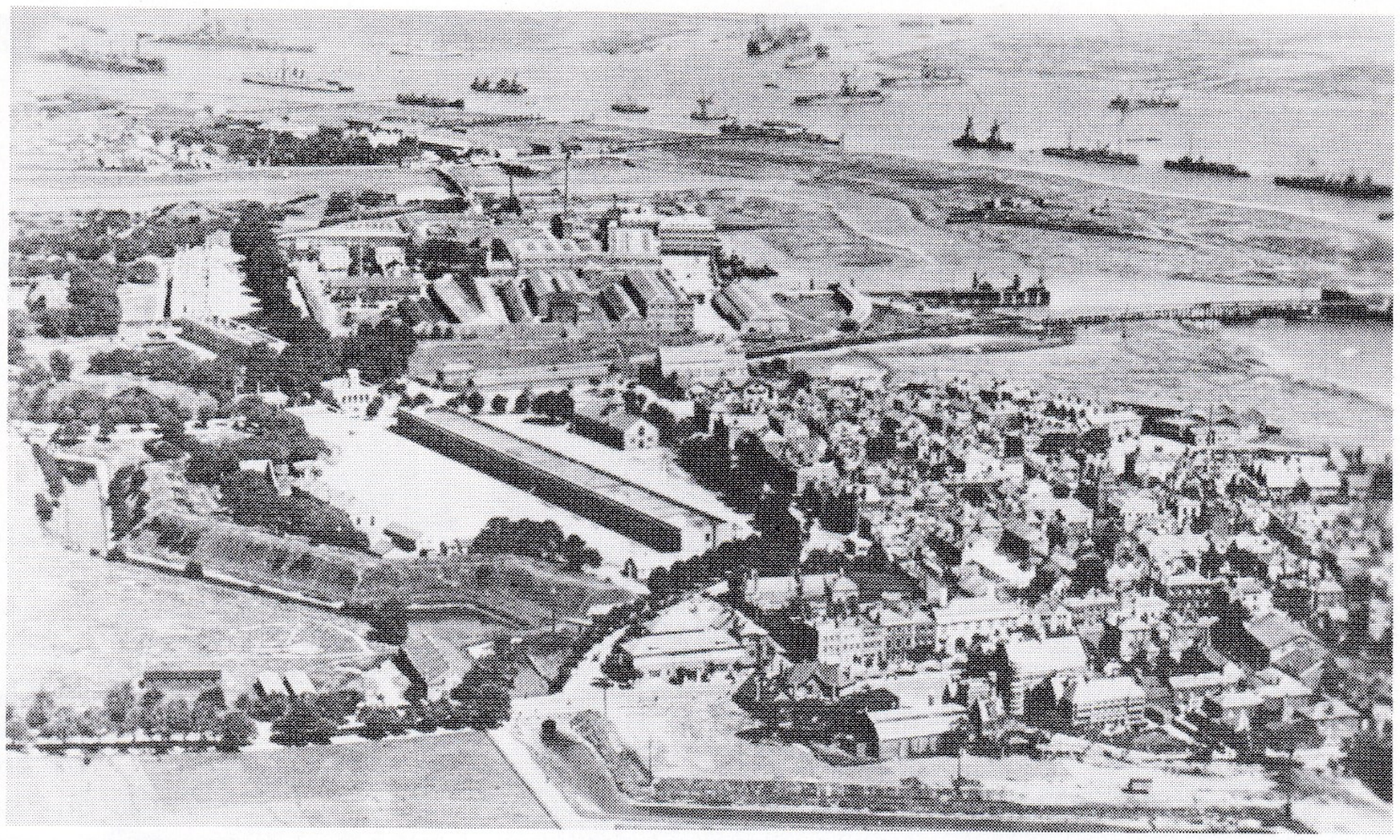


Figure 37 THE GOSPORT LINES BEFORE WORLD WAR II (Surrey Flying Services 91959, copyright Aviation Traders (Engineering) Ltd., from collection of Mrs. B. M. M. Tree.)

plan to improve the Lines at Priddy's Hard in much the same way as those at Weevil and to finish off the far end of the reconstructed line with a demi-bastion just short of Holy Trinity Churchyard,[20] but this was not carried out.

Thus by 1797[21] there was built the only long stretch of the Gosport Lines which now remains, in the neighbourhood of Weevil Lane and in the RNAD at Priddy's Hard. The Weevil rampart, along most of its length, forms the boundary between St. George Barracks and the Oil Fuel Depot. The moat has been filled in near Mumby Road, but most of it still has water in it (see Fig. 48). There are two bastions, one behind the officers' mess (enclosing its garden) and the other behind the married quarters; there is also a demi-bastion by Forton Lake. There was a magazine behind the married quarters, but only the earth traverse around it survives. Buried in the inside of the rampart are at least three expense magazines, with cavity walls for keeping the powder dry, and four smaller shell recesses for the ammunition immediately required for the guns. There are ramps up the inside of the rampart, and on top of it there are two gun pivots and a curious pit which may be a water tank or ice chamber; the parapet survives only near Mumby Road.

The gate through a rampart is usually midway between two bastions. The gate for the Fareham road through the old Lines, south of what is now Mumby Road, and the gate for it through the new Lines, where Mumby Road now intersects the rampart, both conformed to this principle; in consequence, so long as both Lines were standing, the Fareham road had an awkward S-bend between the gates. Through the new Lines there were constructed, probably in the period 1797–1800,[22] the 'Double Gates' – two archways with separate drawbridges over a small ditch lying between the gates and the main bridge over the moat.[23] The inside of the gates (with a small extra arch which was never made) is at Fig. 45, and the outside can just be seen in the picture at *Gosport Records* No. 4, page 10.

The Double Gates have long since been demolished. They may have influenced the design of the arches of the water tower just to the north in St. George Barracks, and there is still a stone on the wall of the Bugle at Fareham which reads '72 miles from London 5 to Gosport Gates'. In about 1972 an excavation for a gas main on the north side of Mumby Road on the site of the Double Gates showed that a good deal of brick work and cut stone work remains below the surface.

On the shore of Forton Lake between the footbridge and the Harbour there is a loopholed brick wall, of 19th-century construction, with a low wall to retain the high tide in front of it. Beyond this there used to be a small work known as Clarence Battery, built between 1790 and 1797.[24]

At Priddy's Hard most of the rampart survives and the moat, though nearly all filled in, can easily be distinguished. There are two demi-bastions, and there is a sally port through the curtain between them. Earth banks have been built as safety traverses round various magazines and in some places are liable to be confused with the defensive works. There is a loopholed brick wall at each end of the moat, but these walls may have been constructed in the 19th century.

Outside the Double Gates, and outside each of the two curtains between them and Forton Lake, can be seen in Figs 38 & 46 three V-shaped ravelins in the covered way. These had been built by 1811.[25] The road to Fareham after crossing the moat turned right through gaps in the ravelin and in the glacis.[26] The milestone which stood in this ravelin has been much defaced and moved to just inside the fence of St. George's Field. The ravelin to the north of this one had opposite it a sally port in the rampart, the inner end of which can still be seen.

We now come to the last section of the Lines to be

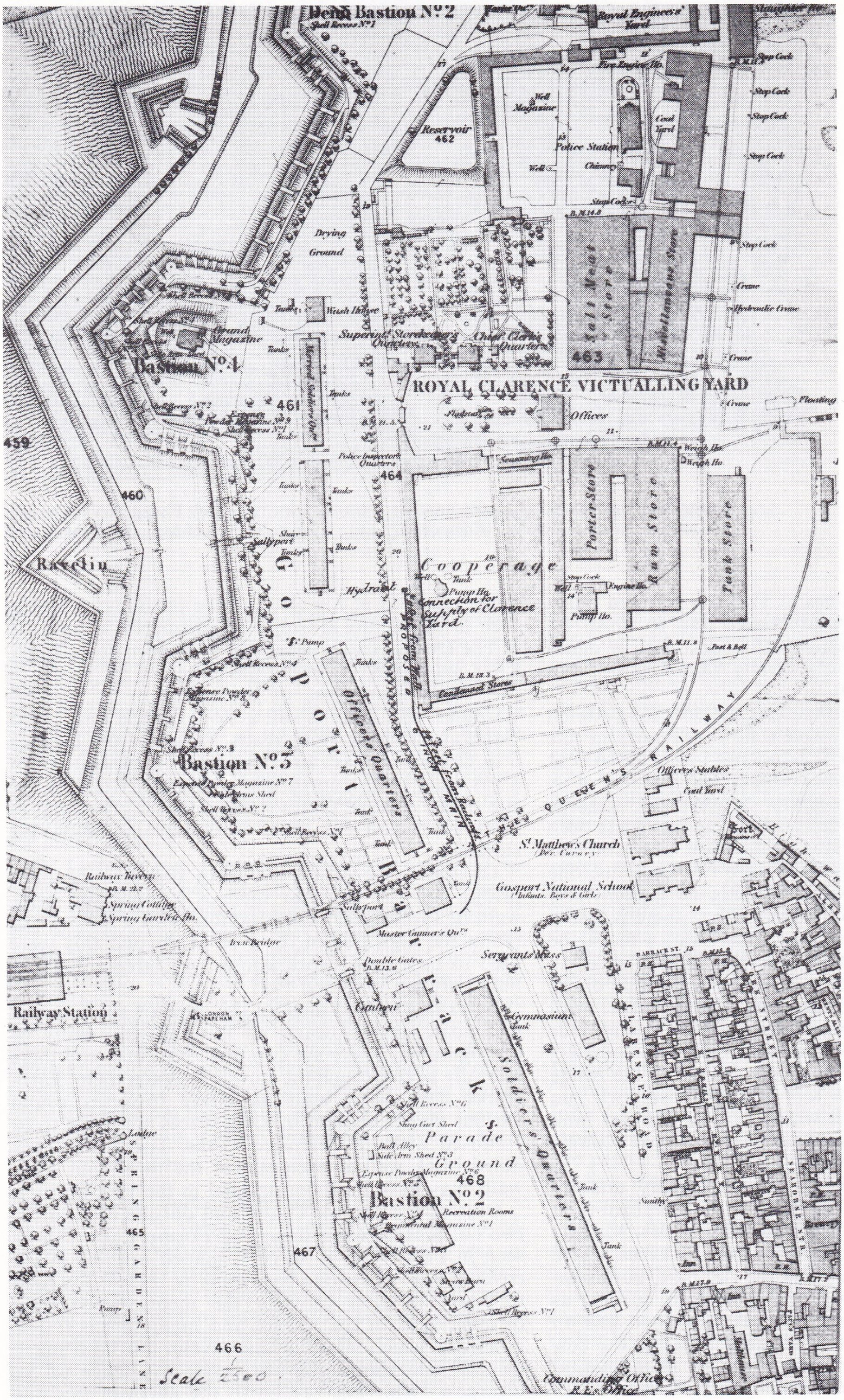


Figure 38 THE GOSPORT LINES ADJOINING WHAT ARE NOW ST. GEORGE BARRACKS, CIRCA 1870
(PCRO 129A/GS/4/2/2, probably drawn for War Office, with water main added.)

Figure 39 THE GOSPORT LINES with Haslar Bridge and the Cockle Pond. (PCM aquatint by Rev. J. Hall.)

Figure 40 HASLAR GATE FROM OUTSIDE 1896 (Gosport Borough Council; by William Snape.)

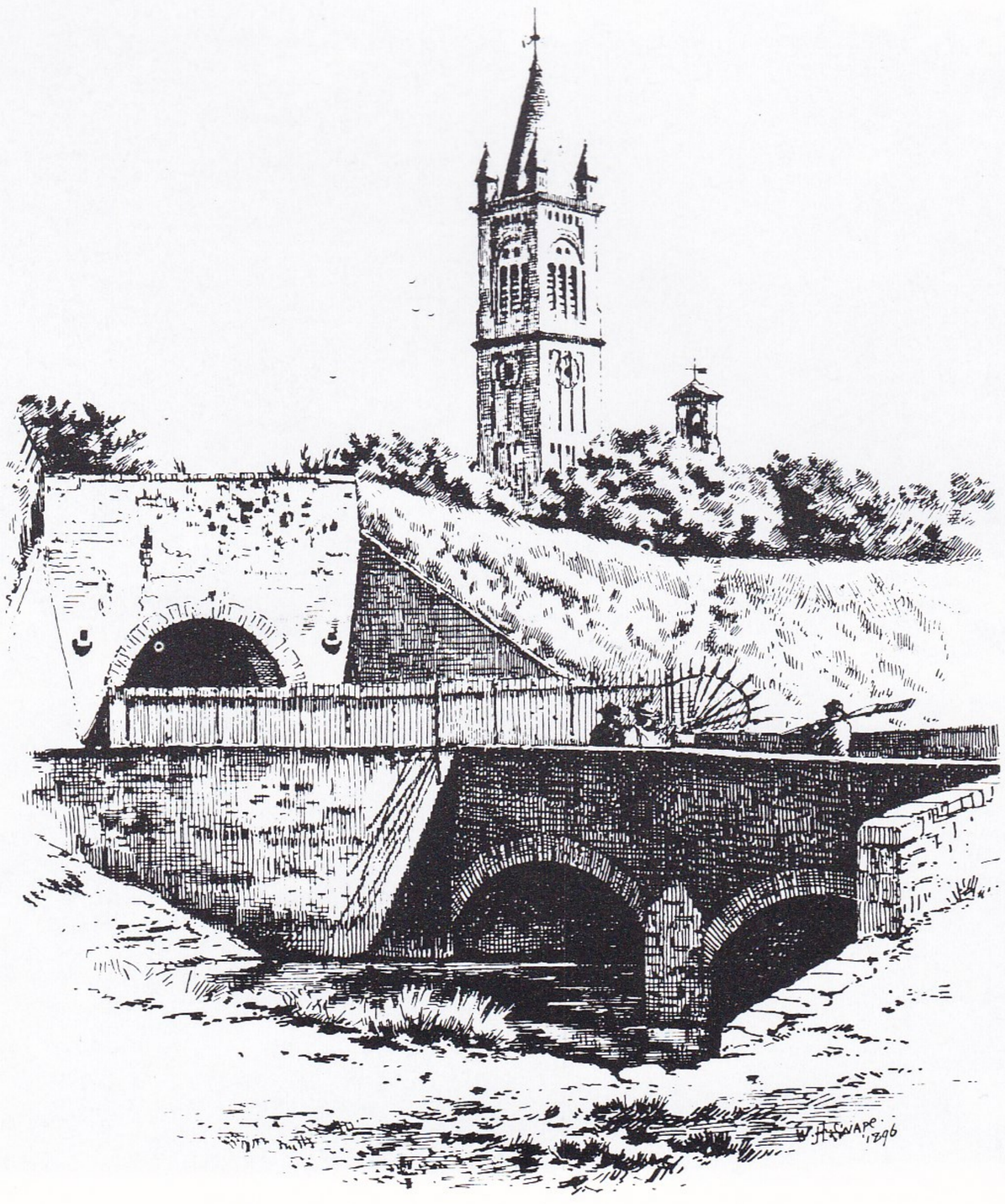


Figure 41 HASLAR GATE FROM INSIDE (Gosport Society.)

Figure 42 HASLAR GATE FROM OUTSIDE (Film strip by Mr. G. Rook in possession of Mr. R. J. Lawrence.)

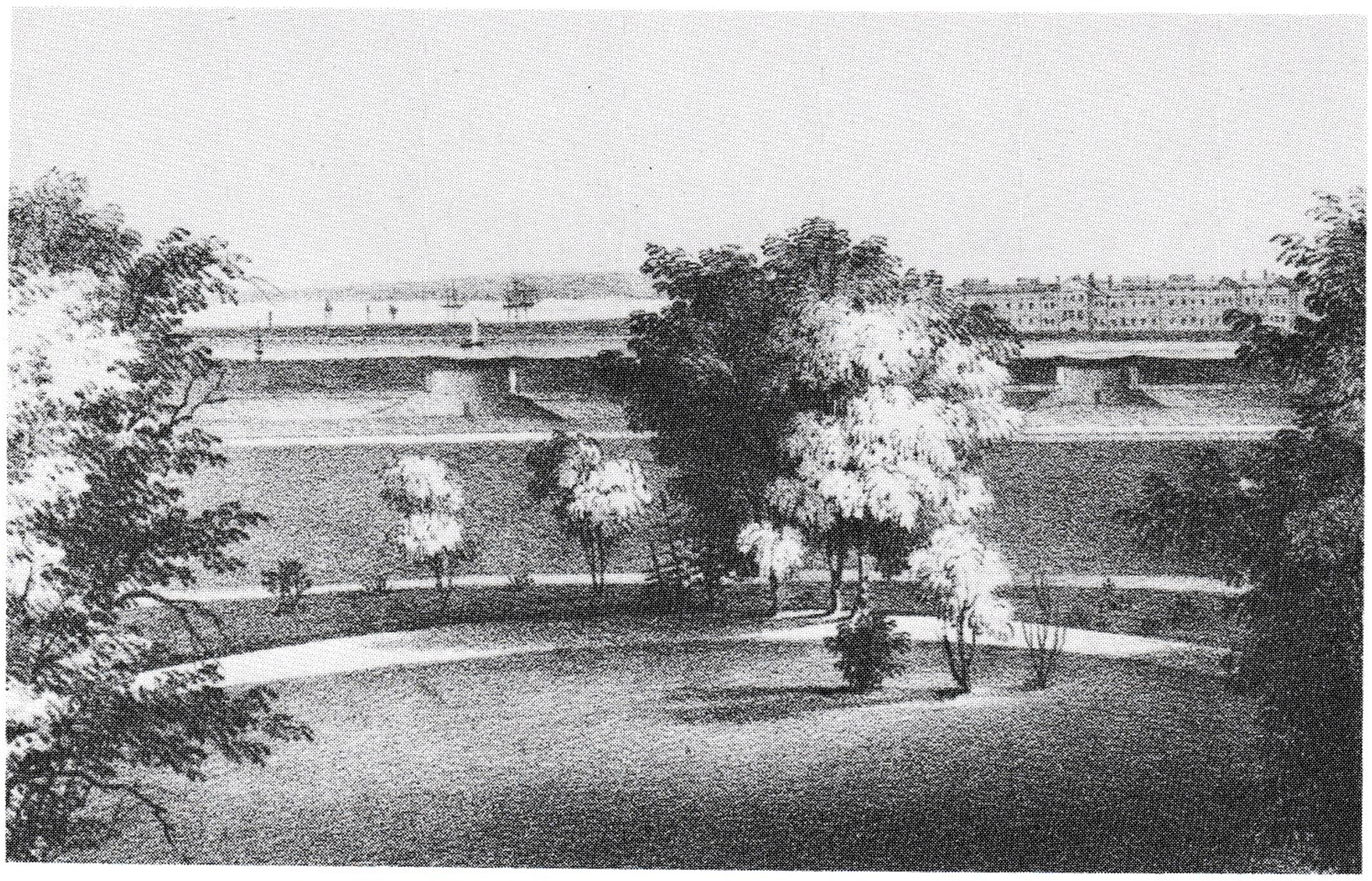


Figure 43 GOSPORT LINES S BASTION FROM HOLY TRINITY VICARAGE CIRCA 1803. The broad dark shadow behind the trees is the inside of the rampart; from the terre-plein, in sunlight, rise the emplacements at the SE and S angles. (Vicar of Holy Trinity; the text with the picture shows that it was lithographed before Rev. R. Bingham left the Vicarage in about 1803.)

constructed – from the Canoe Lake to the still existing bastion by Holy Trinity Church. This section was constructed between 1797[27] and about 1802. Preparations had already been made, but the Board of Ordnance here proceeded in a very leisurely way. In 1779 they made arrangements with the lessees of the land for building fortifications in the area. By 1794 mounds of earth had been prepared, with the intention of building a demi-bastion similar in plan to de Gomme's.[28] Haslar Gate was built in about 1800.[29] But in 1801 the Minister of Holy Trinity obtained a lease of the area of the proposed demi-bastion from the Bishop of Winchester and converted it into a garden, with terraces on the mounds.[30] The bastion (not demi-bastion) was built in 1802–3 by the use of convict labour.[31] The legal problems were such that some of the adjoining land had to be specifically provided for in a compulsory purchase act of 1806.[32] The Board of Ordnance had eventually to pay substantial compensation both to the Minister of Holy Trinity and to the Bishop.

On the existing bastion, nearly half the width of the top of the rampart is occupied by its parapet. Inside this there are 14 gun positions, those at the angles being larger than the intermediate ones; all, or nearly all, of them have gun pivots and semi-circular retaining walls in front. Inside the rampart there are two ramps up, and at ground level two expense magazines and four shell recesses. The high brick wall facing Holy Trinity Church slopes back where it is a retaining wall for the rampart but is vertical where it is merely a boundary wall. Outside the rampart there are a wide berm and the moat. The moat has a brick wall with a sluice separating it from the Harbour, to enable the high tide to be retained in the moat; these were built between 1840[33] and 1858, but there is masonry at the south end which looks older. In Fig. 44 the moat is nearly empty at low tide because the sluice is broken; the car parks and the swimming bath continue the former line of the moat to Walpole Road.

The main covered way outside the older part of the Lines ended at an older sluice near the south-east corner of the Cockle Pond; traces of this sluice can still be seen. But, south of the moat by the bastion, there was erected after 1840 an earth bank along the Harbour's edge, and this converts the peninsula between the moat and the Harbour into a small covered way. At its south end this bank used to turn at right angles and cross the peninsula to the moat, having along this portion a conventional glacis. A map of 1890[34] shows a footbridge across the moat just west of the sluice; further west there are still slopes down to the moat from the berm and from the covered way; these may be part of an earlier provision for fording the moat. On the north of the moat is a vaulted and loopholed brick gallery, from which the defenders could fire along the covered way if the enemy captured it.

At the south-east corner of the Cockle Pond there was a water mill which used the flow of the tide into the Pond and possibly that into the moat; the original embankment separating the Pond from Haslar Lake was no doubt constructed because of the mill. In 1804 the Board of Ordnance bought this mill and also the windmill adjoining the site of Haslar Bridge, in order to demolish them and so clear the field of fire.[35]

The wooden parts of muskets were made of walnut,

Figure 44 BASTION BY HOLY TRINITY 1970 (Portsmouth & Sunderland Newspapers 4341–11.)

and the Board of Ordnance therefore grew walnut trees on their land in various places in Gosport,[36] at Stokes Bay (Fig. 80) and at Hilsea. Some time after 1828[37] they planted them along the inside of the Gosport ramparts;[38] two old ones still remain in the officers' mess garden of St. George Barracks and to the north of it, and some fresh ones may be planted there to keep up the tradition.

Apart from their military importance, the Lines had amenity value. In 1802 it was said that 'the ramparts are a fashionable and much frequented promenade, and the prospects they afford are extensive and not deficient either in grandeur or in beauty'.[39] In 1820 these prospects were described by a poet thus:[40]

> 'From the high ramparts, robed in green,
> The port and Vectian Isle are seen;
> The branching lake, retired vale,
> Extending plain, or sloping dale'.

An account of Gosport written in about 1844 reads: 'The top of the High Street is very pretty, being shaded by trees, and terminated by the ramparts, covered with green sward, and planted with walnut trees'.

The Gosport Lines, Decline

In 1814, when Napoleon was defeated and sent to Elba, the guns on the ramparts were dismantled.[41] But some old guns were still there in the 1890s.[42]

The railway reached Gosport via Bishopstoke (Eastleigh) and Fareham in 1841. The military authorities would not allow it to penetrate the ramparts, and the terminus was therefore in Spring Garden Lane. These authorities also imposed restrictions on the height of the building, to minimise the interference with the field of fire from the ramparts, but in spite of these an architecturally excellent station was built.[43]

In 1840, when the arrival of the railway was imminent, the leading inhabitants signed a petition complaining that the Double Gates, with a pavement only 20 inches wide on either side of the carriageway, were dangerous to pedestrians. Plans were submitted for a pedestrian gateway and drawbridge as shown at Fig. 45, but as neither the Board of Ordnance nor the Railway Company would pay they were dropped.

On 10 May 1845, in connection with the purchase of Osborne House, the Queen and Prince Albert went by train to Gosport Station, by road to the Royal Clarence Yard and by ship to Cowes; 'Prince Albert let fall a hint how much her Majesty would be pleased if the Railroad were continued thro' the fortifications of Gosport to the water's edge in the Royal Clarence Yard'. Within a week a survey for a railway extension had started. The *Hampshire Telegraph*, reporting all this, added that if the Board of Ordnance 'allow a hole to be made in the face of the Gosport works, we in Portsmouth may fairly ask to do away with all the useless fortification that exists in the heart of our town for no possible use [f]or defence'. The railway was taken through the rampart to a new terminus in the Royal Clarence Yard, and in September 1845

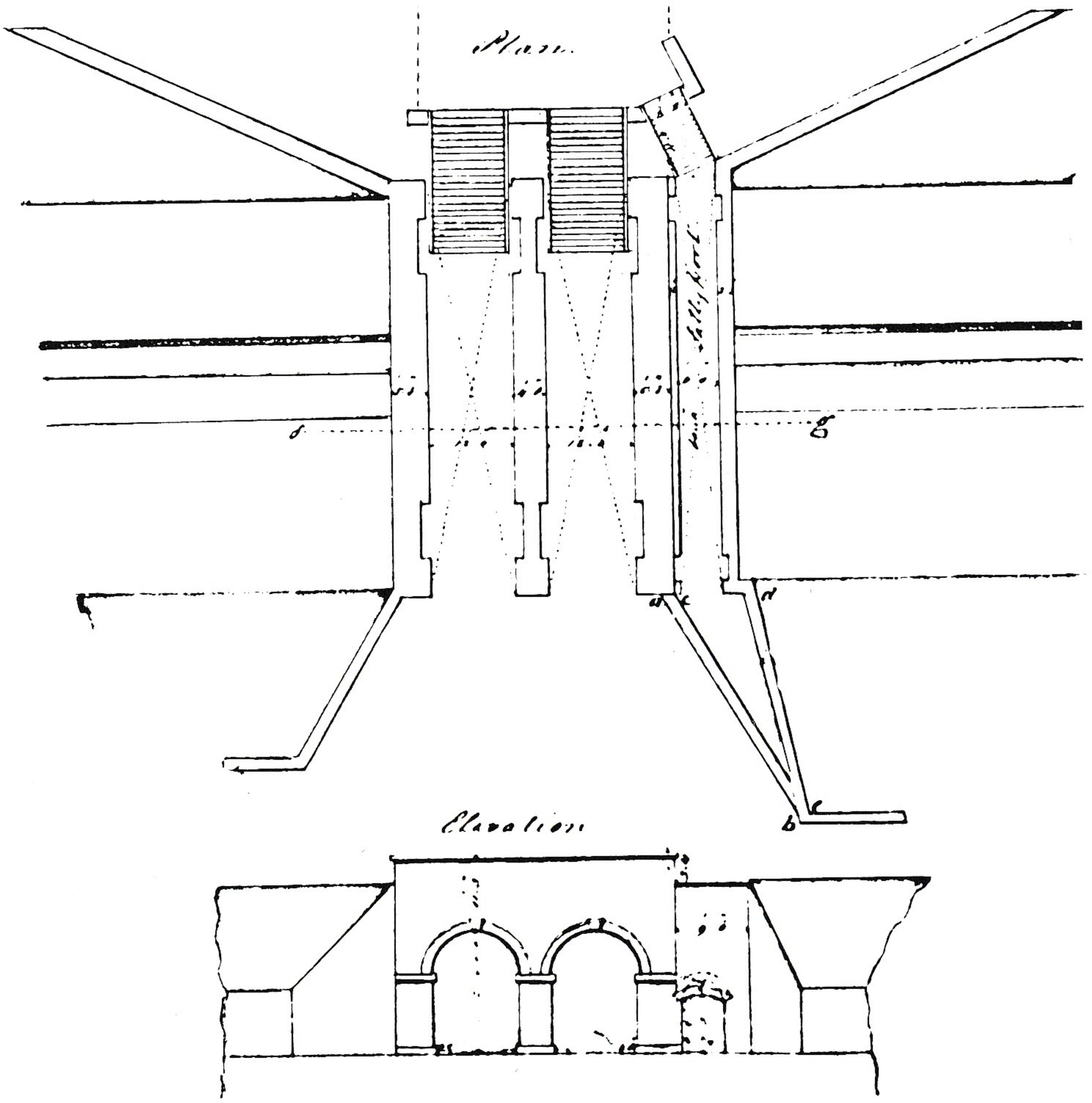


Figure 45 THE DOUBLE GATES with proposed pedestrian gateway, 1840; see pp. 33 and 38. (PRO WO. 44/280.)

members of the Cabinet went there by train on their way to Osborne;[44] the Queen and Prince Consort habitually used this route thereafter. The military restrictions of 1841 had been overruled for Royal convenience. The arch through the rampart still exists, just north of Mumby Road, and until about 1970 was closed on the outside by massive wooden gates. In 1847 the railway to Portsmouth penetrated the Hilsea Lines on reaching Portsea Island – the second penetration of a defence line by a railway in this area.

We now come to the era of military construction associated with the name of Palmerston. This is briefly described in the Epilogue, and here we can deal only with its effect on the older defences.

In 1852 there was begun the construction of the Gomer-Elson line of forts, which were intended to keep an enemy much further away from the Harbour than the ramparts could. Nevertheless, the design of St. George Barracks, built in 1856–59, assumed that the ramparts would come under fire. The barracks had a low silhouette and also a strong roof intended to take an earth covering, though this was probably never put on.[45]

In 1860 a Royal Commission on the Defence of the UK recommended a ring of forts to keep the enemy even further away. They wrote of the lines round Old Portsmouth, Portsea and Gosport that they enclosed too little space, were obstructed by buildings in their vicinity and had 'no influence whatever in protecting the naval establishments from bombardment'. Nevertheless, the Commission recommended their retention 'to protect the naval establishment[s] from capture in the event of an enemy forcing a landing in their immediate neighbourhood'.[46] A local opinion of the Gosport Lines was given in the *Alverstoke Parish Magazine* of April 1864: 'Their utmost power of resistance to modern artillery would be very trifling. However, the moral influence of the old lines is of value. Their existence would give confidence to the defenders of the outer and more modern forts. They would feel that, if beaten and forced to retreat, they still had something to fall back upon, some other place

Figure 46 THE GOSPORT LINES 1858, scale here 1/9200. (Reproduced from portion of BA Chart 2631, edition 1858, with the sanction of the Controller, HM Stationery Office, and of the Hydrographer of the Navy.)

Figure 47 CLEARING SITE FOR LIBRARY NOW MUSEUM, 1899, (Film strip by Mr. G. Rook in possession of Mr. R. J. Lawrence.)

Figure 48 MOAT NEAR WEEVIL LANE 1975. St. George Officers' Mess Garden is in right foreground and Forton Lake in background. (R. Clarence Yard; reproduced by permission of MOD(N).)

Figure 49 MOAT SOUTH OF PRESENT MUSEUM AND WALPOLE ROAD 1933 (Photograph by Mrs. B. M. M. Tree.)

where they could make a stand, and have one more chance of beating back the enemy'.

On this view the Gosport Lines had become a dubious second line of defence. The other side of the Harbour there were three lines of defence: first, the Portsdown Hill forts; second, the Hilsea Lines along the north shore of Portsea Island, actually reconstructed in about 1860; and third, the defences of Old Portsmouth and Portsea. In spite of the Royal Commission's recommendation, a third line of defence was considered unnecessary, and most of the Old Portsmouth and Portsea defences were demolished in the 1870s. Their demolition had an indirect effect on Gosport: it enabled the Portsmouth railway in 1876 to reach the Harbour at what became Portsmouth Harbour Station, where passengers could transfer direct to boats for the Isle of Wight; this rendered the Stokes Bay Railway, opened in 1863, uneconomic.

The Gosport Lines lasted longer. But by 1890 Walpole Road had been driven through them to provide a direct route from the High Street to Alverstoke, and the Main and Double Gates had been demolished.[47] From then on the demolition of the Lines has continued spasmodically almost to the present day.[48] What remains is described above.

THE OUTER GEORGIAN FORTIFICATIONS

Stokes Bay

Apart from Henry VIII's short-lived Haselworth Castle (page 13) and from one or two earlier works which did not form part of any general scheme of defence (page 7), all the Gosport fortifications built up to the middle of the 18th century were within half a mile of Portsmouth Harbour. For a long time, however, there were proposals designed to forestall an enemy landing at Stokes Bay. To appreciate these it is necessary to know something of the geographical history of the area.

From the Harbour entrance the coast runs SW for about a mile and a half, past the site of Haselworth Castle, to what is now called Gilkicker Point; then it runs NW and WNW along Stokes Bay, past the present mouth of the Alver, to Browndown Point. Until the 18th century the Alver used to flow into Gomer Ponds, near its present mouth, then along a tidal creek parallel with the sea to the lake at Gilkicker (which was larger then than now). Thence it flowed into the sea.[1] The creek was stated in 1587 to be in most places not wadable at high tides.[2]

The creek flowed through Stokes Bay Marsh, behind which there was a cliff or bank stated in 1587 to be 10 to 16 feet high; this has given Alvercliff Drive and Alverbank their names. Much of it still exists north of Stokes Bay Road and south of Fort Road, but along the eastern part of Palmerston Way it has been cut back so that Palmerston's moat could run in a straight line, and further west it has been screened by his rampart and the infilled moat in front of it.

Some time between 1716 and 1772 the lake at Gilkicker was cut off from the sea, and the Alver was diverted under what is now Anglesey Road into Haslar Lake, an arm of the Harbour. Large scale maps between 1772 and the mid 19th century show this course, though small-scale ones show a variety of courses! By 1847 the river had been given a subsidiary exit to the sea through a pipe under the beach at its present mouth. There exist detailed descriptions of its course dated 1774, 1780 and 1847.[3] In 1849 there was a proposal to reopen its original channel to Gilkicker Lake, but apparently nothing came of this.[4]

In about 1860 the Alver was linked with the Stokes

Figure 50 LIEUT. GEN. ROBERT MONCKTON, engraved when he was a brigadier general. (Gosport Society; Miller sculpsit.)

Bay Moat, and indeed the lower part of its present course retains the form of a wide defensive moat. The Moat communicated with the sea at the present mouth of the Alver and through four sluices, one at Alverbank, one near Jellicoe Avenue, one just west of Stokes Bay Pier and one at Gilkicker Lake. The earlier bed of the Alver, and two bridges over it, can be seen between Bay House and Alverbank.

When Gilkicker Lake was open to the sea, the rising ground immediately east of it, now occupied by Fort Monckton, was in the angle formed by the coast and the lake. In 1545, as we have seen, Haselworth Castle stood here 'upon the point of Hasilworth'. A century later the Gilkicker landmark was erected here. Probably as the result of this, the site became known as Gilkicker Point. It retained the name long after the building of the present embankment between the lake and sea had made the site cease to be a point. Even the 1864 edition of the 1810 one-inch Ordnance Survey map[5] shows 'Gilkicker Point' at Fort Monckton. But eventually this name acquired its present meaning. This has caused some confusion; e.g. it has been thought that references to the building of a fort at 'Gilkicker Point' in about 1780 referred to the present Fort Gilkicker whereas in fact they referred to Fort Monckton or its predecessor.

There is a tradition dating back at least to 1857[6] that the Alver formerly flowed through or near Stanley Park, Kennedy Crescent and Village Road to Haslar Lake. But all the evidence is against this: maps from the 16th century onwards; the ground levels in Stanley Park; and the absence of alluvium from the Geological Survey map.

So much for the configuration of the area. As regards its military importance, there was for a long time a fear that an enemy might land at Stokes Bay or Browndown and advance to the western shore of the Harbour. The Earl of Sussex, Lord Lieutenant, wrote at the time of the Spanish Armada that 1,000 ships could ride there, and that after three quarters flood tide a ship of 80 to 100 tons could put its nose aground and come off again; 20,000 or 30,000 men could thus be landed rapidly.[7] Sir Martin Beckman, Chief Engineer to William III, wrote in 1700/01 'there is all good Landing . . . from Blockhouse Point to ye further Point of Stoaks Bay full Six Miles in Length'.[8] Talbot Edwards wrote in 1707/8 that Stokes Bay 'is a good Landing Place to come against Gosport, and attack the Harbour on that side'.[9] Lt. Col. Archer, Commanding Engineer at Portsmouth, wrote in 1780 that Stokes Bay 'presents a fine Shelving Beach for Troops to land upon, under Fire from their Shipping; and when landed, seems to afford an open Spot to form, before an Attack is made on the high Grounds, which surround it'.[10] Maj. W. F. D. Jervois, Asst. Inspector-General of Fortifications, wrote in 1857 that 'the beach is perfectly practicable for landing along its whole length, and there is sufficient depth of water to admit of large ships lying within 800 yards of the shore'.[11]

These views were shared by the country's potential enemies. A Spanish intelligence report of 1597 described Stokes Bay as 'a very fine bay where one can cast anchor in all winds, except from the south-west'.[12] French invasion plans of 1768 and 1779 envisaged landings at Stokes Bay.[13] It was mainly due to the Royal Navy that no landings ever took place here.

Early Proposals for the Defence of Stokes Bay

As we have seen, Haselworth Castle was dismantled in the reign of Mary Tudor. In view of the vulnerability of Stokes Bay, it is not surprising that during the following two centuries there was a succession of proposals for new defence works there: what is surprising is that nothing is known to have been done about them till 1779.

In 1587, in view of the threat from Spain which culminated in the Armada the following year, the Earl of Sussex proposed that an earthwork should be built at Haselworth Castle; that a wall and sluice

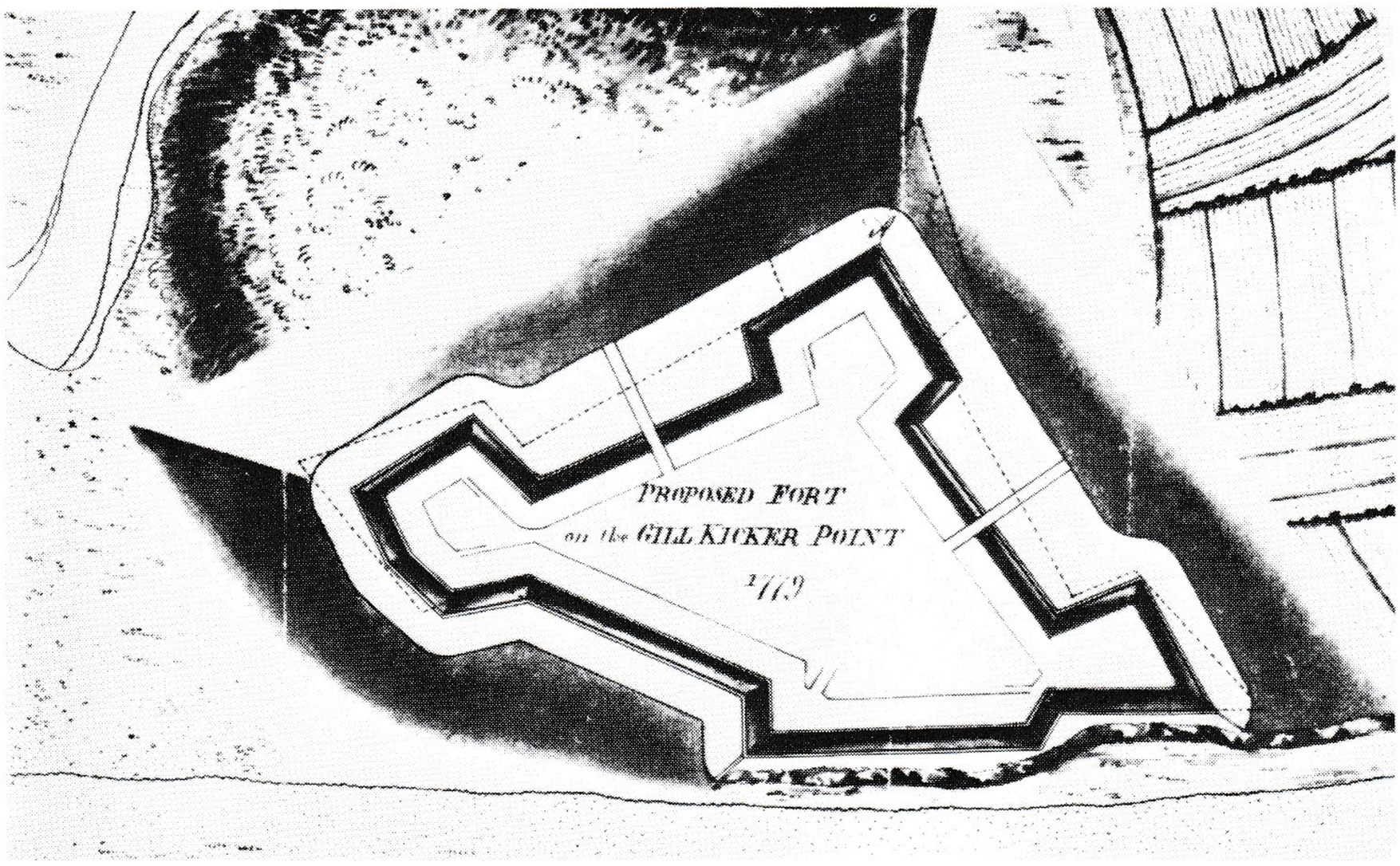


Figure 51 TEMPORARY FORT 1779 later rebuilt as Fort Monckton. (BL K. Top. XIV 63.2.b, reproduced by permission of the British Library Board.)

should be built at the mouth of the Alver at Gilkicker, so that the high tide could be retained in the creek along Stokes Bay; and that the cliff behind the creek should be cut back, so that it would be difficult to scale and could be covered by flanking fire.[14] It seems that nothing was done at the time. When the mouth of the Alver at Gilkicker was eventually closed this was probably done for economic rather than military reasons; Stokes Bay Marsh had been included in a 1628 grant of tidal lands along the Hampshire coast for reclamation.[15]

De Gomme (see page 15) in 1678/9 proposed to build at Stokes Bay or at Gilkicker a two-storey guard house surrounded by a palisade nine feet high.[16] His successor Sir Martin Beckman in 1700/01 proposed for Gilkicker a gun platform with redoubt and counterscarp, 'to prevent a Squadron of Ships to ride at Spithead and Stoaks Bay'.[17] In 1707/8 Talbot Edwards proposed to build 'Seaven Platformes and Redouts' westward from Gilkicker with lines of communication between.[18] He also proposed to build a defensive work on the coast at Haslar 'lesse than a Myle distant from the Grand Magazine of the Town'; unfortunately this Grand Magazine has not been found on any plan.

The Temporary Fort at Gilkicker

At last, in 1779, there was a crisis which produced action.[19] The War of American Independence was in progress, and a large part of our Army and Navy were engaged on the other side of the Atlantic. France had been planning an invasion for some years and in 1779 persuaded Spain to assist in one. A pair of French spies did an extensive reconnaissance of Portsmouth and the Isle of Wight; they visited Gosport twice and reported that it was 'virtually without defence, protected on the landward side only by an ill-maintained entrenchment . . . . which would fall at the first assault, and by a feeble enceinte much too extensive for its garrison' of one militia battalion.[20]

The French plan was that a Franco-Spanish fleet would obtain command of the Channel. A force already assembled on the French coast would then seize the Isle of Wight, after which they would attack Portsea Island and Gosport simultaneously. The Franco-Spanish fleet after much confusion and delay entered the Channel in mid-August. The much smaller British Channel Fleet sighted but did not engage them. The enemy fleet had arrived short of water and provisions; sickness was rampant on the ships and many thousands of the crews died. The fleet withdrew in early September, and the immediate danger had passed.

The land forces in the area were commanded by the recently-appointed Governor of Portsmouth, Lt. Gen. Robert Monckton. He had been Wolfe's second-in-command at Quebec and had other distinguished war service. He was a distant cousin of Rev. Charles Monckton, Rector of Alverstoke 1715–40.[21] His Commanding Engineer at Portsmouth was Lt. Col. John Archer, who had been appointed to the post as a captain in 1769, on the death of J. P. Desmaretz (see page 27);[22] he was appointed just in time to build the first magazine at Priddy's Hard, and in so doing to quarrel with the local civilian Ordnance staff.[23]

On 13 August 1779 Lt. Gen. Monckton directed Archer to throw up a work at Gilkicker Point; Archer had for some time been asking for permission to do this. A regiment (the Surrey militia) was ordered to encamp at the site to provide labour,[24] and the Gilkicker landmark (see page 14) was demolished to clear the ground.[25]

Thus was built the temporary fort which was later rebuilt as Fort Monckton. It comprised an earth bank six feet thick,[26] kept in place by fascines – bundles of brushwood; the 20th-century equivalent would have

Figure 52 THIRD DUKE OF RICHMOND AND LENNOX
(Gosport Society; pub. J. Walker 1782.)

been sandbags. A plan of it is at Fig. 51; the dotted line shows the shape prescribed on the landward side by the text-books of military engineering, but owing to the configuration of the ground and the speed required it had to be built as shown by the solid lines. On the seaward side a direct assault would have been difficult, but Archer had in mind to build at a later stage a redoubt on the beach, capable of enfilading the front of the fort. The guard were in tents; these were destroyed by high winds in 1780, which will hardly surprise readers who know this coast.[27]

A curious feature of the temporary fort was that its magazine was conspicuous from the sea: a chart surveyed in 1783[28] states that it should be used in conjunction with the Kickergill landmark, as the Gilkicker had been. It must have been rather vulnerable to naval bombardment.

A cut was made to enable the sea to inundate the low ground;[29] this was probably a very temporary emergency measure. In 1780 Archer proposed, as a more permanent means of enabling the low ground to be flooded at will, to put a sluice on the Alver where it entered the tunnel at what is now Anglesey Road,[30] but it is not clear whether this was done.

The temporary fort must have been far from complete when the immediate Franco-Spanish threat fizzled out in early September. But it was operational and had a seaward battery of 24 guns in 1782, when the Channel Fleet has gone to the relief of Gibraltar and an attack by Dutch ships was feared;[31] though work on a permanent fort had then started, it cannot have got very far.

The Building of Fort Monckton

When Lt. Gen. Monckton on 22 August 1779 reported to the Commander-in-Chief that he had directed Lt. Col. Archer to throw up a work on Gilkicker Point, he added that the defence of this point required a permanent and respectable work.[32] In the ensuing months Archer at every opportunity pressed his superiors to make the fort permanent. For example, in his 'Considerations on the Defence of Portsmouth' he wrote: 'The advantages of this Situation, with regard to its Command of the Bay, the Country on every Side . . . . and being as a Key to let in the Waters, by which the low Grounds along the Bay may be overflowed! are such that when seen in their proper light, will I doubt not be sufficient enducement to make it for ever Respectable by making it Permanent'.[33]

The design of the permanent Fort was the subject of much controversy.[34] Archer proposed a plan similar to that shown by the dotted lines on Fig. 51; this involved banking up the angles considerably, but, given time, was quite feasible. He still intended to have a detached redoubt on the west side to fire along in front of the seaward face. In July 1780 his design was approved and the start of the work was authorised. Nevertheless, by September work was proceeding on the basis of a slightly different plan.[35]

In September 1780 a plan was approved for a triangular defensible barracks in the centre of the Fort.[36] In the same month the Ordnance Chief Engineer proposed to give the Fort a curved face to the sea, with which Archer violently disagreed; the Board of Ordnance turned this down.

At this point we may digress from the design to the name of the Fort, hitherto known as 'the Fort at Gilkicker' or something of the sort. In the Storekeeper's accounts such a name was used up to mid-December 1780, but from then onwards the title 'Fort Monckton' was used.[37] In 1781–82 it appears in an Act of Parliament.[38] Lt. Gen. Monckton died in May 1782. He had lived long enough to be aware that his name had been given to the Fort, and it is by the Fort that he is best known among the local inhabitants today.

The Minister responsible for fortifications was the Master-General of the Ordnance. In February 1782 the third Duke of Richmond and Lennox was appointed; with a short break in 1783, he remained in office till 1795. (His grandfather, the first Duke, was a natural son of Charles II by the Duchess of Portsmouth.) He had strong and controversial views on fortifications. He visited Fort Monckton, disapproved of what was being done, and on 3 March 1783 substituted a new plan, symmetrical and with two bas-

Figure 53 JOHN TINLING (In the author's possession.)

tions towards the sea. What was eventually built follows this plan, modified to present a rather wider front to the sea.

Archer made a mild criticism of the plan approved by the Duke. Then, on 2 April, there was a major reorganisation of the Ordnance Engineers. The works on the Gosport side of the Harbour became the responsibility of Lt. Col. Moncrief, while those on Portsea Island and elsewhere in the Solent area remained with Col. Archer.[39] (The Engineer commands for Portsmouth and Gosport remained separate until the departure of Lt. Col. Moncrief in 1790, when they were again combined.) Archer was highly affronted by the reduction in his command. A committee of senior Engineer officers then visited Portsmouth and reported adversely on Archer's work. In January 1784 he was removed from his command. He protested to the Duke of Richmond and asked to be court-martialled or to have his conduct investigated by a Board of Enquiry; the Duke after showing his letter to the King refused this request. Archer does not appear to have been employed again, though he continued to be promoted. When he died in 1799 he was a Lieut. General in the Corps of Invalid Engineers, and had recently been granted an additional allowance 'on account of his long service and present distress'.[40] In 1789 he was living at Stubbington Lodge,[41] in what is now Stubbington Avenue, North End, Portsmouth.

During these arguments work was proceeding: by mid-1781 there was a substantial section of Purbeck stone sea wall. The above-mentioned committee of senior officers observed that money had been wasted on account of the many alterations found necessary.[42]

The Duke of Richmond was responsible for a large programme of building of fortifications at home and overseas, of which Fort Monckton was only one item. Other local items included improvements to the Gosport Lines described on pages 31 & 32, proposed new forts at Stokes Bay and Frater described later, and the rebuilding of Fort Cumberland on the far side of Portsea Island.

Perhaps it was the end of the war with the American colonists and France and Spain which led to the first setback to the Duke's programme. The preliminaries of peace were signed in January 1783; on 22 March the Duke directed Archer to stop all works in the Portsmouth district except the enclosing of new batteries and to retain only such small number of workmen as were necessary to preserve the works from damage.[43] A few months later, owing to a reduction in the Army, it was even proposed to remove the guard from Fort Monckton. This caused difficulty, as 1,450 barrels of gunpowder were stored there and there was no room for them at Priddy's Hard.[44] As the main magazine of the permanent Fort when built held only 573 barrels, 1,450 seems an extraordinarily high stock. A considerable number of warships were laid up in Portsmouth Harbour,[45] and it looks as if Ordnance were using Fort Monckton, because of its isolated position, to store the gunpowder unloaded from them.

The Duke was out of office from April to December 1783, but when reinstated continued to press his programme of fortifications. There was much opposition to it in Parliament. On 14 March 1785 in the House of Commons Pitt, the Prime Minister, moved Ordnance Estimates at Report Stage, and was forced by the opposition to withdraw them pending examination of the programme by a board of senior naval and military officers. The terms of reference of the board, of which the Duke managed to be president, contained a number of detailed questions on the defence of Stokes Bay, which indicate the nature of the discussion which had been taking place.[46] The board reported on the whole favourably, but when Pitt on 27 February 1786 moved a resolution in support of the programme this was defeated by the casting vote of the Speaker.[47] In spite of all this the Duke managed to carry on with Fort Monckton, though he had to abandon his proposed new forts at Stokes Bay and Frater.

From the beginning of 1783 or earlier an engineer officer called 2nd Lieut. James Glenie was in immediate charge of the work at Fort Monckton.[48] He was removed in late 1784.[49] In 1785, after two postings in quick succession, he resigned his commission, and

published a *Short Essay* of about 100 pages attacking the Duke's programme.[50] An *Answer* of about 70 pages was published on the Duke's behalf in the same year.[51] In 1794 Glenie published an undated *Reply to the Answer* of about 40 pages, together with the original *Short Essay* and further material.[52] In this publication Glenie attacked the programme as a whole and attacked the Fort Monckton work, with which he was familiar, in considerable detail.

In view of the political changes and of the controversy at various levels, it is not surprising that the rate of progress varied. In the Storekeeper's accounts (covering mainly civilian labour, but not military labour or major purchases of materials), the rate of expenditure reached a peak in 1782, dropped by over a third by 1784, doubled by 1786 and then dropped again.[53] The Fort in its original form was practically completed during 1789–90.[54] The French Revolutionary War started in 1793.

The Fort, unlike its temporary predecessor, was built mainly by civilian labour. But from late 1787 onwards a company of the newly-formed Corps of Royal Military Artificers and Labourers (afterwards incorporated in the Royal Engineers) was stationed at Gosport;[55] for a time they were chiefly employed on the Fort.[56] Hire of horses with drivers is a frequent item in the accounts.

In 1783 and early 1785 there was discussion of the poor quality of the bricks purchased for the Fort.[57] But purchases continued on a large scale. In 1785–87 at least 880,000 were obtained from Portsmouth and Gosport contractors.[58] In 1788 Ordnance started making their own bricks in the Gosport area, almost too late for the Fort (see Appendix I).

John Tinling was Ordnance Clerk of Works at Minorca, then a British naval base, when the French and Spanish captured it in February 1782.[59] By the end of that year he was working as an overseer at Stokes Bay.[60] On 30 June 1784 the Duke of Richmond visited Fort Monckton;[61] Tinling was reappointed to the grade of Clerk of Works with effect from that day, and the Duke wrote to him on 5 August saying that he had restored his pay to its former rate.[62] It seems a fair inference that Tinling had complained to the Duke about his position. He appears repeatedly in the Storekeeper's accounts for Fort Monckton and was evidently responsible for the work at Clerk of Works level during most of the period of its erection. In 1790 he went to Grenada on promotion to Storekeeper.

In 1784 Robert Glyman, an illiterate Ordnance employee working at the Fort, was dismissed. He then complained to the Ordnance Office in London that Mr. Russell, one of his superiors, had charged for more men than were in fact employed; had compelled the employees to spend their wages at a canteen run by the foreman of the carpenters, who was in collusion with him; had used Ordnance employees to cultivate land for his own purposes; and had used them in handling smuggled goods, including 36 half-ankers of gin and brandy. (An anker is about 8 gallons.) The Ordnance Office instructed their local representatives to investigate these allegations, and to employ Glyman at Portsmouth Gunwharf during the investigation so that he could assist.[63] This was done, but unfortunately no record of the result of the investigation has been found.

At this point it is convenient to say something of the later history of the Fort. By 1860 it was getting out of date. A Royal Commission in that year recommended surrounding the Portsmouth area by a ring of more modern forts, and allocated to Fort Monckton a relatively minor defensive role.[64] By 1880 such a ring had been completed – the forts on Portsdown Hill, in the sea and on the Isle of Wight, Fort Gilkicker and the Gomer-Elson line. In 1878 the Royal Engineers moved into Fort Monckton, to use it primarily as a barracks while experimenting and training with their new equipments – submarine mines and, later, searchlights. In the 1880s there were structural alterations involving a great reduction in the number of guns provided for.[65] In World War I it recovered some slight operational significance by mounting anti-aircraft searchlights, and in World War II by housing an anti-aircraft Artillery unit. Today it is used for a training establishment but it has the distinction of being the only fort in the Portsmouth area still in military (as opposed to naval) occupation.

A Description of Fort Monckton

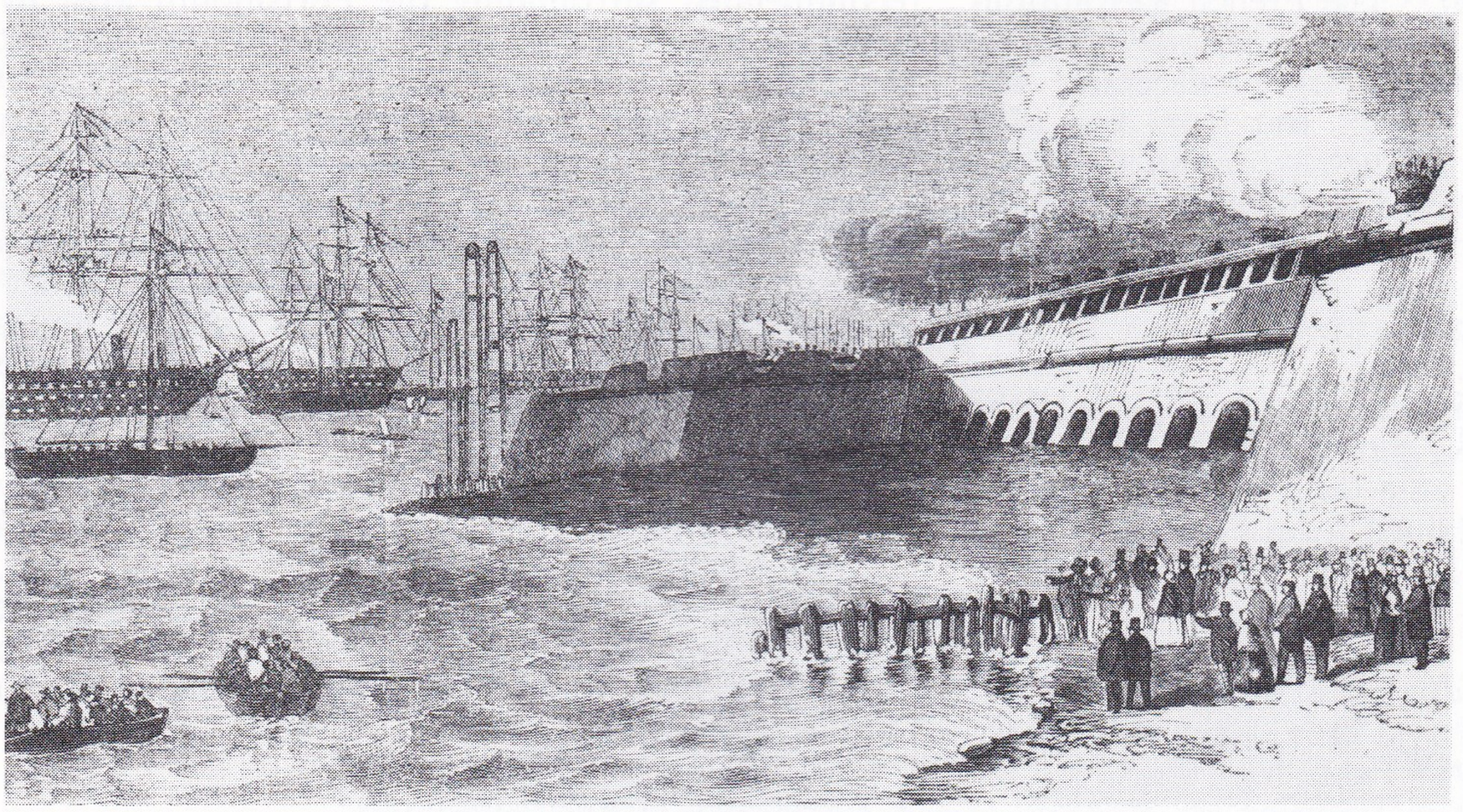
Fig. 57 is from a 1797 plan. Almost the whole of the Fort as shown there still exists, though there have been later additions. There are very few 18th-century structures left in Gosport, and this one has also a wider importance as an example of the military architecture of the time. As it still exists (though it is not open to the public), and as there are detailed drawings of much of it, dated 1883,[66] it can be described in some detail.

Non-specialist readers of this section are advised to consult the general description of fortifications on pages 14 & 15 and, where necessary, the Glossary on page 67.

From the sea, or even across the sea from Southsea

Figure 54 FORT MONCKTON DURING FLEET REVIEW 1856 (*Illustrated London News*, 3 May 1856.)

Figure 55 FORT MONCKTON DURING SHAM ATTACK 1856 (*Illustrated Times*, 26 April 1856.)



esplanade, the Fort is an imposing structure. On the landward side, from a distance one cannot see much of the older parts; any approaching enemy were intended to see little besides the muzzles of the guns! Even if one goes close and looks across the dry moat at the rampart, it is difficult to envisage the layout of the Fort as a whole.

The Fort is an isosceles triangle with the base running NE–SW along the shore; it has five projecting bastions and three curtain walls between them. The entrance is in the middle of the north curtain, but otherwise the Fort is almost symmetrical. The sea front, scarp and counterscarp are faced with Purbeck stone, and other vertical surfaces are generally brick. (Various purchases of Purbeck stone appear in the accounts though there are also minor references to Portland stone.[67])

The seaward side is the most important. Between the two bastions a stone-faced curtain wall rises from the beach, pierced low down by 22 embrasures for guns and, in the middle, a sally port for access to the beach. The wall at the bottom of the sally port is 7 ft. 6 in. thick. The embrasures have now been filled in and the shingle is apt to pile up against the lower

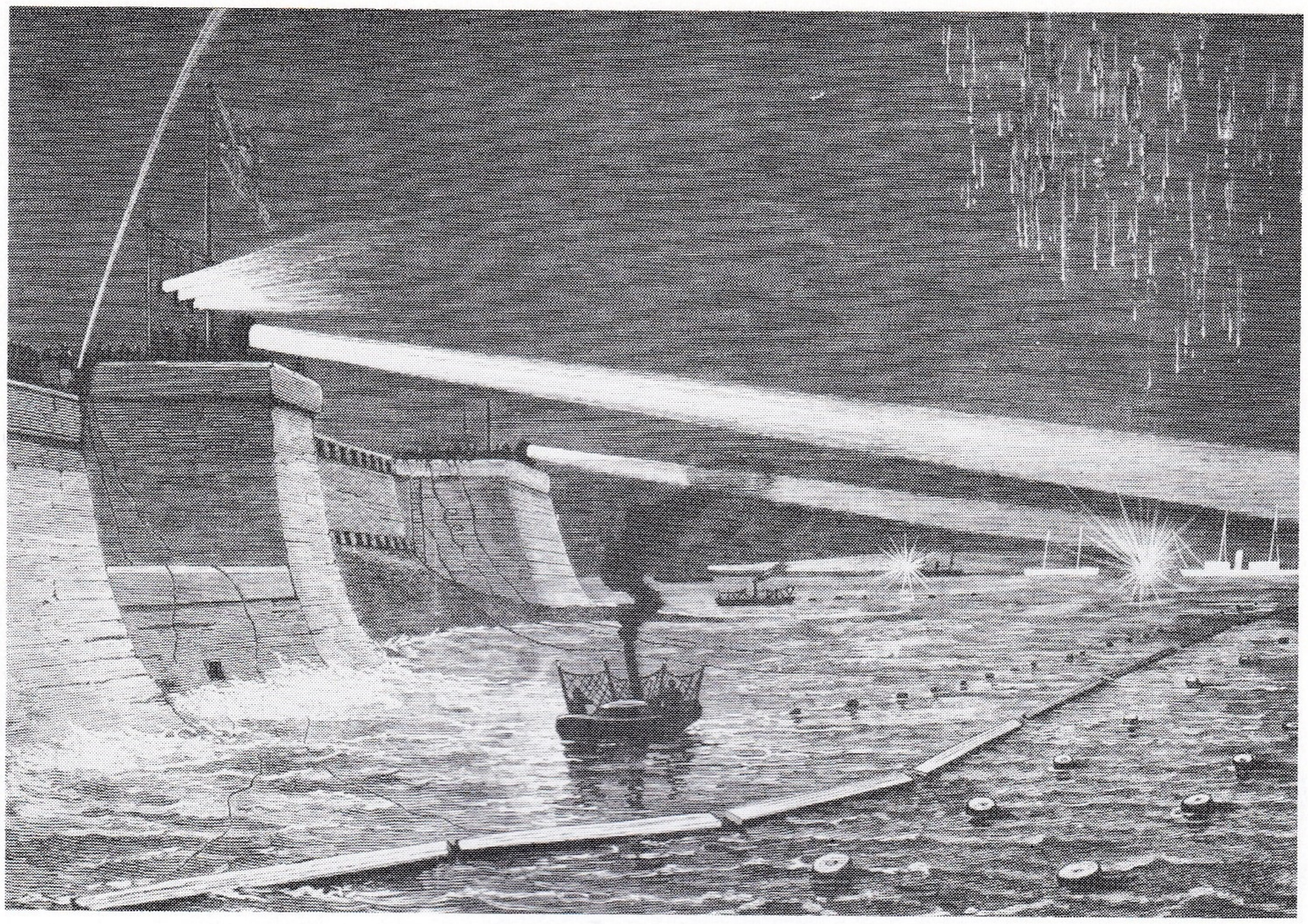


Figure 56 FORT MONCKTON DURING SUBMARINE MINING EXERCISE 1879 (*Illustrated London News*, 25 Oct. 1879.)

Figure 57 FORT MONCKTON 1797. 1, parade ground; 2, casemates; 3, terre-plein of curtain; 4, terre-plein of bastion; 5, parapet; 6, dry moat; 7, covered way; 8, ravelin; 9, caponier; 10, glacis. The bottom of the plan faces SE and the main scale divisions are 50 feet. (PRO MPHH 226, with added figures.)

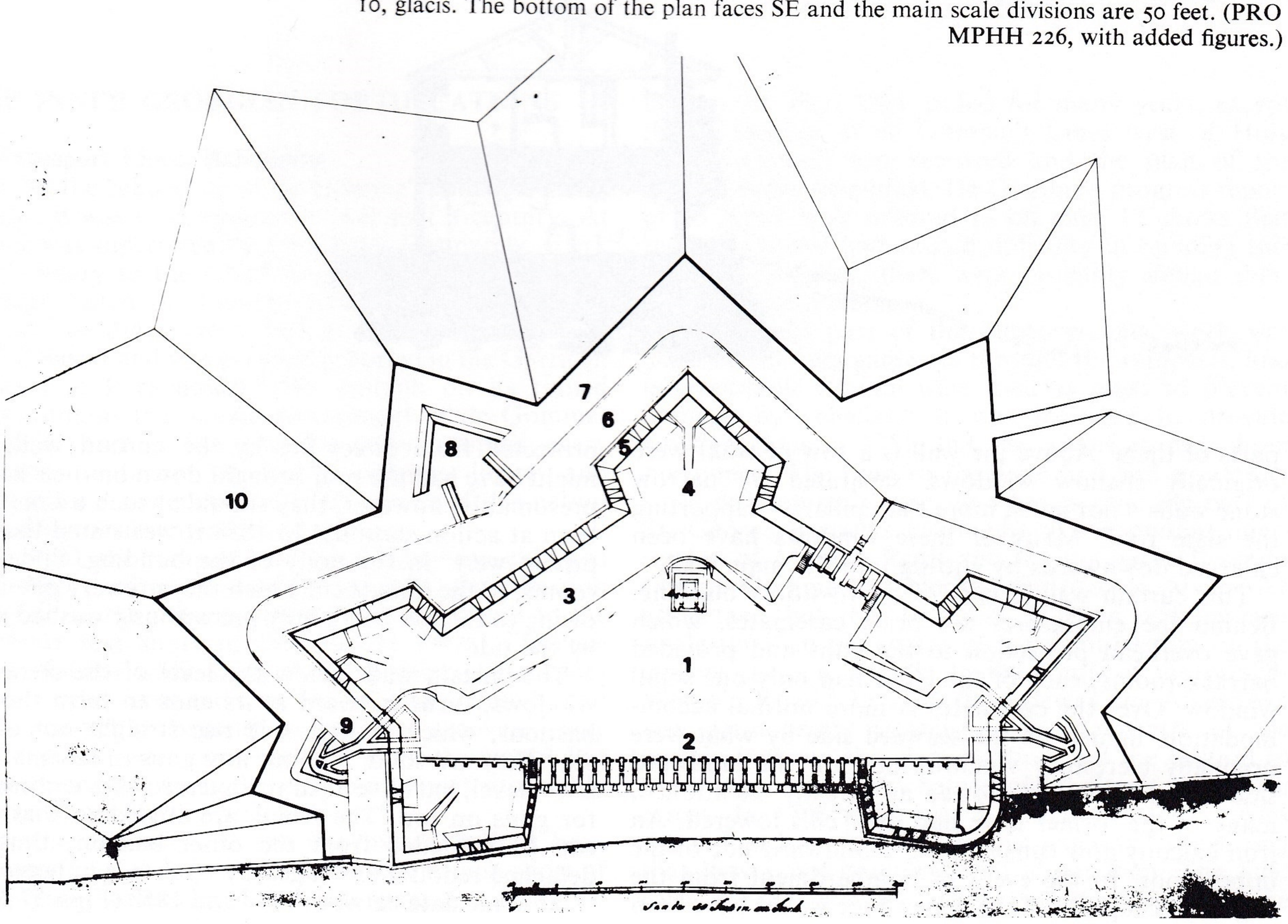


Figure 58 FORT MONCKTON seaward side (Mr. J. E. Wyke.)

Figure 59 FORT MONCKTON seaward curtain 1883 (PRO WO. 78/5011(2).)

parts of them. Above the wall is a row of what were originally shallow windows, separated by narrow stone walls – not much more than pillars – supporting the slate roof. Many of these windows have been enlarged downwards by cutting into the main wall.

This curtain wall is part of a two-storey building. Behind the embrasures are brick casemates, which gave overhead protection to the guns and provided barrack rooms; each of the latter had only one small window. Over the casemates is more normal accommodation, lighted on the seaward side by what were originally clerestory windows and on the landward side by ordinary windows; as already mentioned, many of the former have had their cills lowered. An iron balcony now runs along the landward side of the upper floor. In the event of bombardment from the sea, any occupants of the upper floor would have been protected from direct fire by the curtain wall, but might have had the roof brought down on their heads; presumably, however, they should at such a time have been at action stations! In 1858 it was stated that the privies were 'in the body of the building, under the rooms, to the inmates of which they are very offensive, owing to the soil being only precariously washed away by the tide'.[68]

The curtain wall, below the level of the clerestory windows, turns outward at its ends to form the two bastions, which at high tide rise straight out of the sea. They are solid, without any guns in casemates at a low level, but have a parapet pierced with embrasures for guns on top. The fronts are angled so that each can be enfiladed from the other bastion; thus the detached redoubt envisaged by Archer is unnecessary.

At some date between 1797 and 1858 (Figs. 57 & 73)

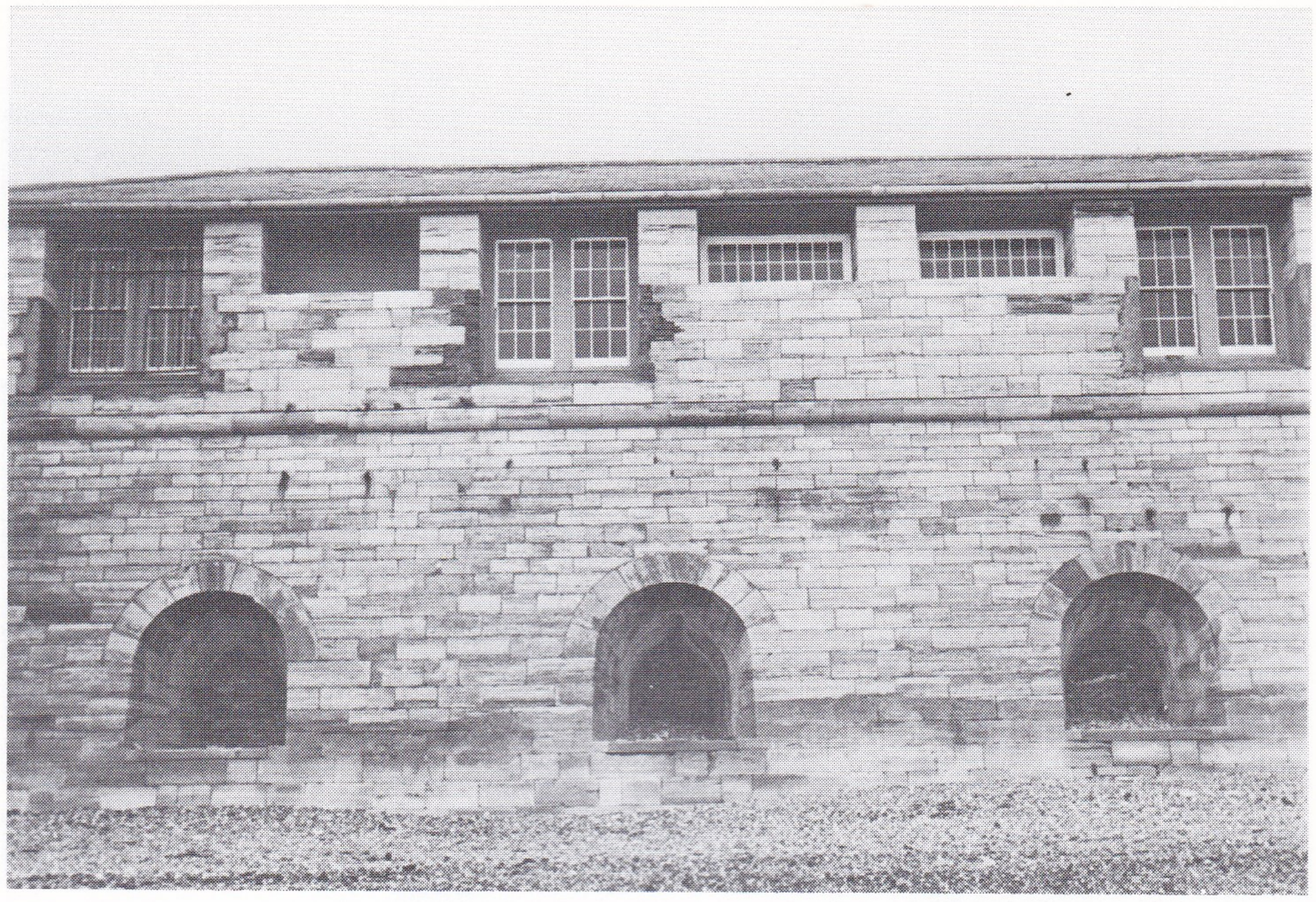
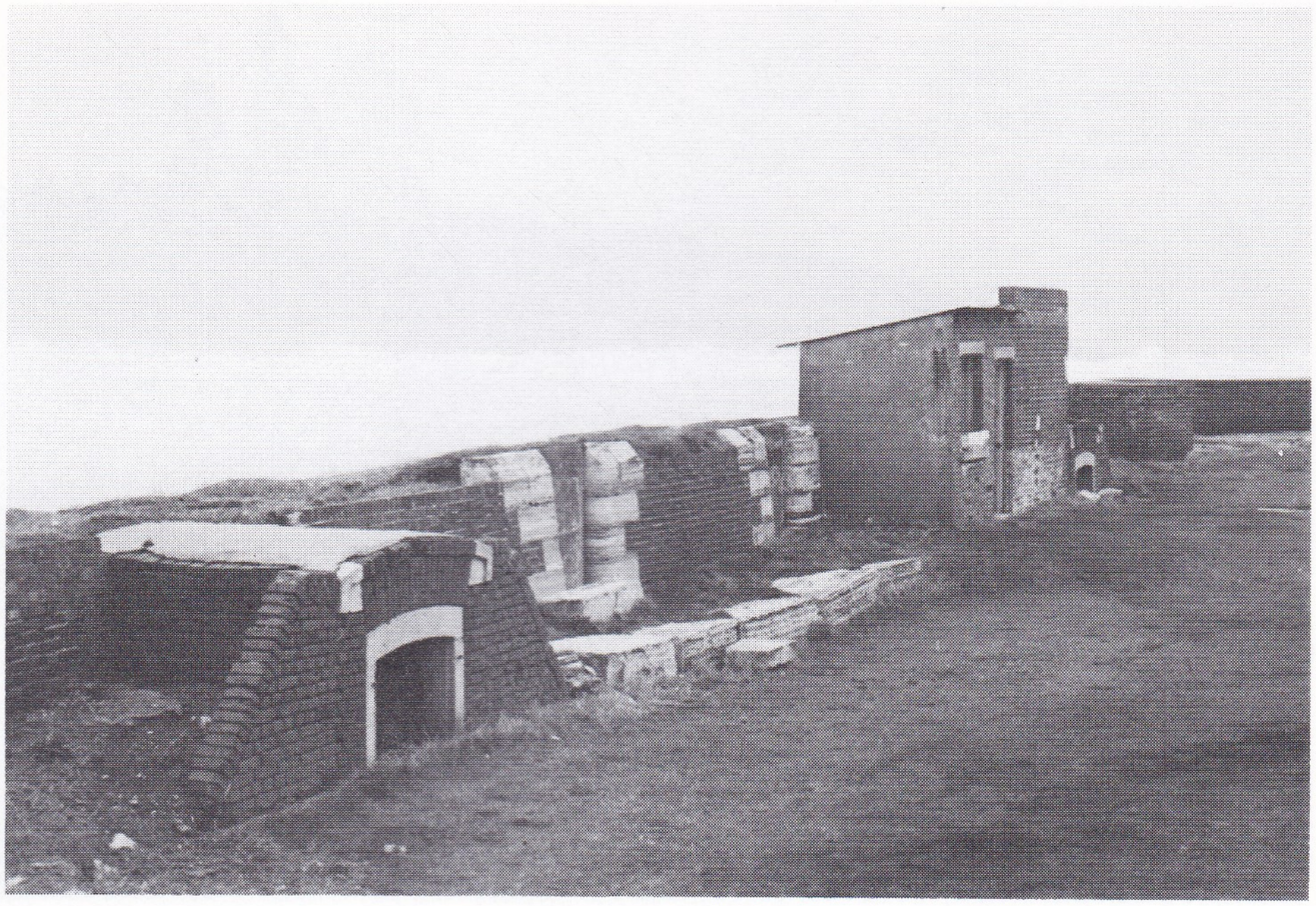


Figure 60 FORT MONCKTON part of seaward curtain. (Mr. J. E. Wyke.)

Figure 61 FORT MONCKTON blocked embrasures and shell recesses on S bastion. (Mr. J. E. Wyke.)



single-storey accommodation, cement rendered on the seaward side, was built on the terre-plein behind the bastions, continuing the line of upper floor accommodation which runs along the curtain wall. In the 1970s the south-western additional block was internally rebuilt and was extended inland beyond the terre-plein, this extension having an extra storey below it.

The landward side of the Fort has a more conventional rampart, with terre-plein, parapet and stone scarp. Curtain walls face roughly N and W, with an angled bastion pointing NW between them, and with another bastion (actually shaped more like a demi-bastion) at the seaward end of each curtain. A conspicuous block of buildings was erected in the 1960s on the NW bastion and the adjacent part of the

Figure 62 FORT MONCKTON inside of seaward curtain. (Mr. J. E. Wyke.)

Figure 63 FORT MONCKTON emplacement at S corner of S bastion. (Mr. J. E. Wyke.)

W curtain. In consequence the parapet on this bastion (apart from its E flank) and on the W curtain was destroyed; but the scarp wall was rebuilt to its original level and the alteration therefore cannot be discerned from outside the Fort (apart from the absence of any trace of embrasures).

In the alterations to the Fort in the 1880s already mentioned, most of the embrasures (including some on the seaward bastions) were closed, the parapet being made good and the scarp wall patched fairly neatly. All the remaining embrasures, except three on the seaward bastions, have since been closed in a rough and ready manner.

There are let into the parapet a number of expense magazines and shell recesses. On one near the southernmost point of the Fort can still be seen, inside

Figure 64 FORT MONCKTON SW end of casemates. (Mr. J. E. Wyke.)

Figure 65 FORT MONCKTON SW bastion; gun pivot, two searchlight positions and, beyond, SW end of the seaward buildings before recent extension. (Mr. J. E. Wyke.)

and outside, the ventilating slots of the double walls provided to keep the powder dry.

On all the bastions except the NW one there are granite slabs with circular or semi-circular tracks in them and sometimes pivots at the centre. These are mostly the remains of late 19th-century gun emplacements, but two on the seaward side of the W bastion are the remains of searchlight mountings of the Royal Engineers. On the NE seaward bastion, two covered searchlight mountings and an observation tower are more conspicuous reminders of the Royal Engineers' occupation of the Fort.

In the centre of the north curtain is the gatehouse, an arch with accommodation above and in casemates alongside it. Fig. 66 shows how it is built on to the inside and top of the massive scarp wall.

Inside the Fort is a triangular space, mainly parade ground; part of it has been liable to flooding by spring tides. In the NW corner is the main magazine. It is a chamber with a barrel vault of thick brickwork, surrounded on three sides by a passage with a lower barrel vault. The space under the floor has ventilation ducts to keep the powder dry. There are windows in the inner and outer walls, but not opposite each other. One of the original wooden doors, sheathed in brass and hung on bronze hinges, remains; iron was not used in magazines for fear of sparks. In the 1880s the magazine was converted into a canteen; most of the massive SE wall was replaced by a thin wall with clerestory window, and there were other relatively small alterations.

Several expense magazines are built into the bottom of the inside of the rampart.

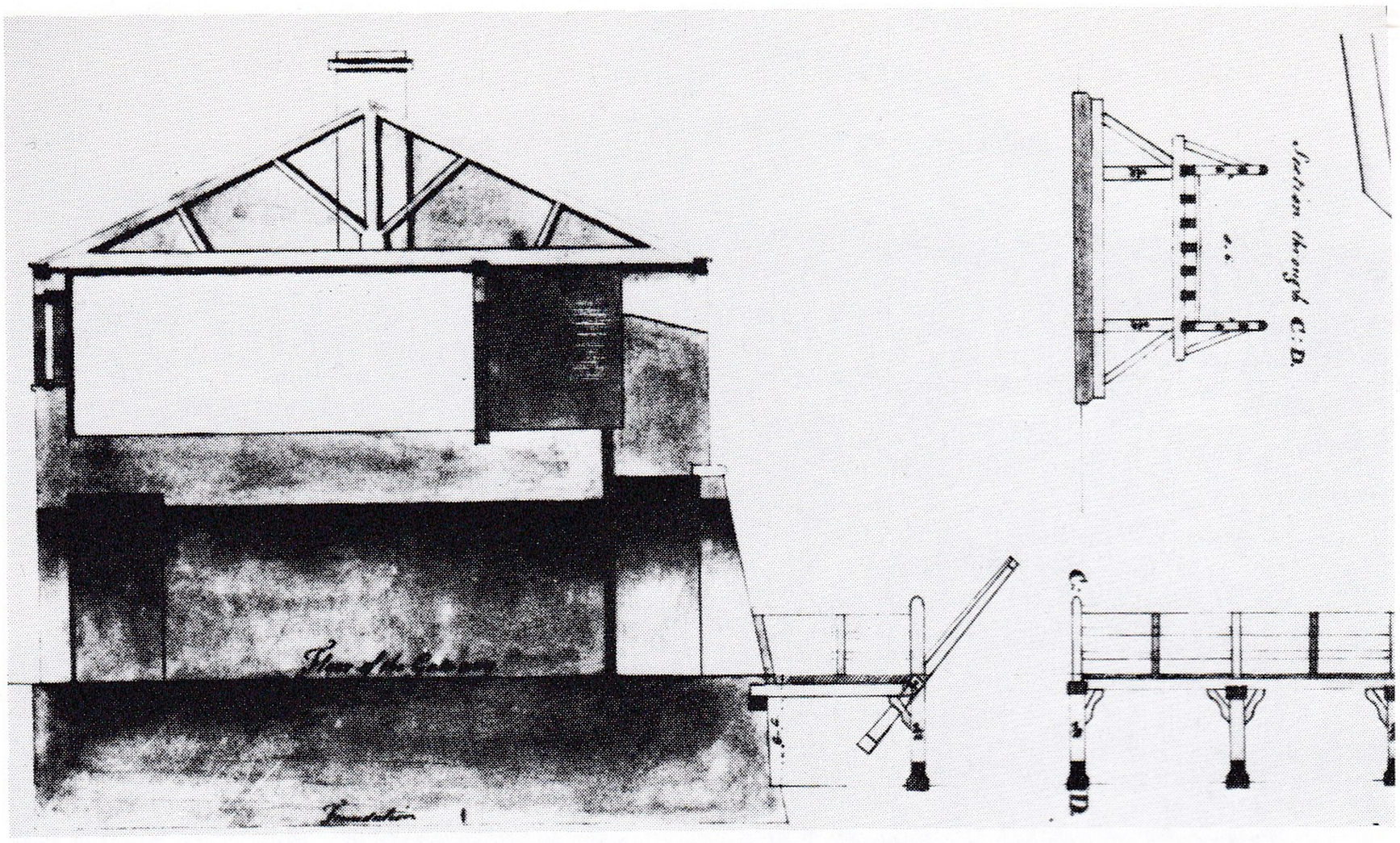


Figure 66 FORT MONCKTON gatehouse and part of proposed bridge, 1795. (PRO MR 1426(2).)

Figure 67 FORT MONCKTON main magazine with expense magazine beyond. (Mr. J. E. Wyke.)

At different times various buildings have been built inside the Fort, mainly on the western part of the original parade ground.

Outside the rampart is a dry moat, each end being at the top of the beach. Beyond the moat is a wide covered way, on the far side of which a brick retaining wall rises most of the way to the level of the glacis, at least six (originally eight) feet above. This far side has salients in front of the two curtain walls. In these were built V-shaped ravelins, higher than the outside of the covered way; both of these ravelins are shown in Fig. 73, but only one in Fig. 57. In two cross-sections of the Fort included in the 1883 drawings a firing step is inserted (shown very lightly) on the covered way against the glacis wall; no trace of this remains and it may have existed only temporarily or in a few places, the ravelins being regarded as the normal advanced firing position. In 1795 instructions were given to mount 12 32-pounder guns on the glacis;[69] the covered way and ravelins as existing and as shown

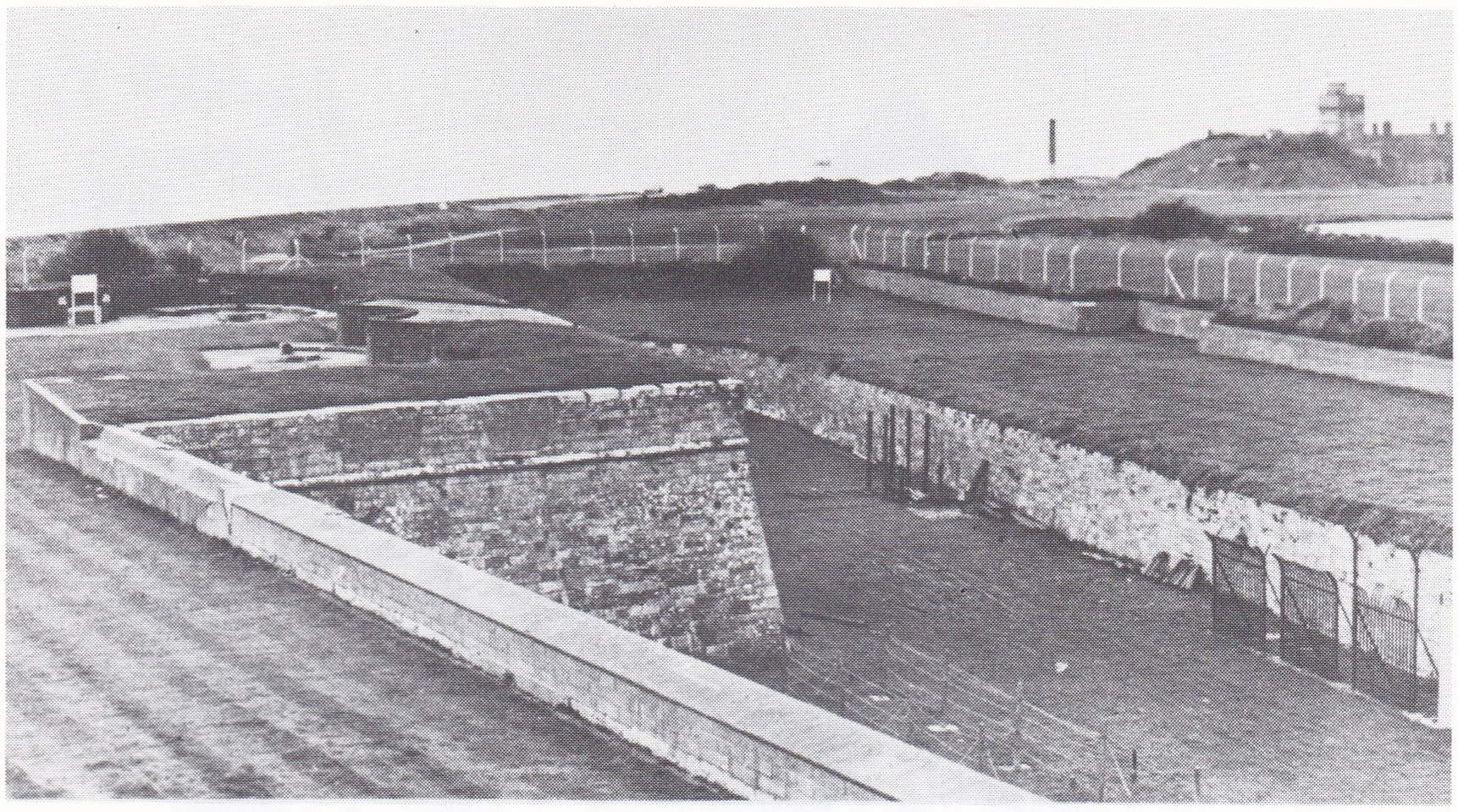


Figure 68 FORT MONCKTON SW bastion, dry moat and covered way. In the foreground the parapet has been demolished. (Mr. J. E. Wyke.)

Figure 69 FORT MONCKTON SW end of dry moat. (Mr. J. E. Wyke.)

in plans would not have accommodated these, and it may have been intended to build temporary platforms for them.

At each end of the moat there are two sections which could not be enfiladed from bastions in the way which was then conventional. Here were built across the moat arrow-shaped brick caponiers (Fig. 70); they were perhaps the most advanced feature in the design of the Fort, though they were severely criticised by Glenie.[70] They were two-storey constructions low enough to avoid direct fire, at any rate from the land, with massive brick vaults supposedly bombproof. In the late 18th century caponiers as defensive works – not mere bombproof passages – were something of a novelty,[71] though 19th-century ones can be found at Fort Brockhurst and elsewhere. They had numerous loopholes, from which the defenders could fire along the moat and, from the upper storey, along the covered way. The lower storey of each was approached by two tunnels through the rampart, and the upper by two entrances with steps down from the terre-plein. Part (but fortunately not the same part) of each caponier has been demolished, but from the remainder, and from Fig. 70 and a similar plan of the upper storey, it is possible to get a good impression of this interesting feature. Indeed, the partial demolition enables the intricacy of the curving brickwork and the skill used in its construction to be appreciated better here than anywhere else in the Fort.

The SW caponier was also a sally port. From each

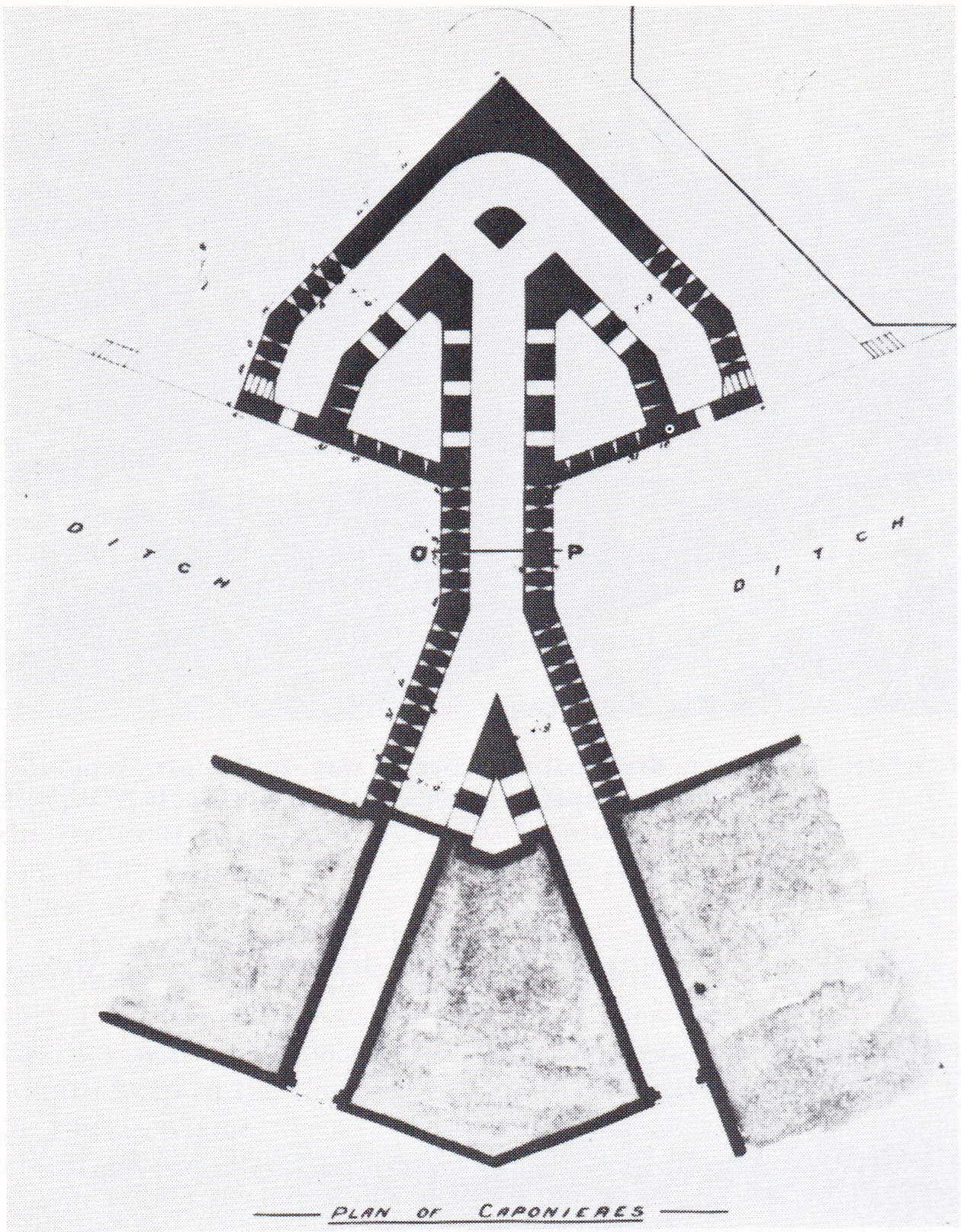


Figure 70 FORT MONCKTON caponier, lower floor, 1883.
(PRO WO. 78/5011(3).)

Figure 71 FORT MONCKTON SW caponier and covered way, with dry moat in foreground.
(Mr. J. E. Wyke.)

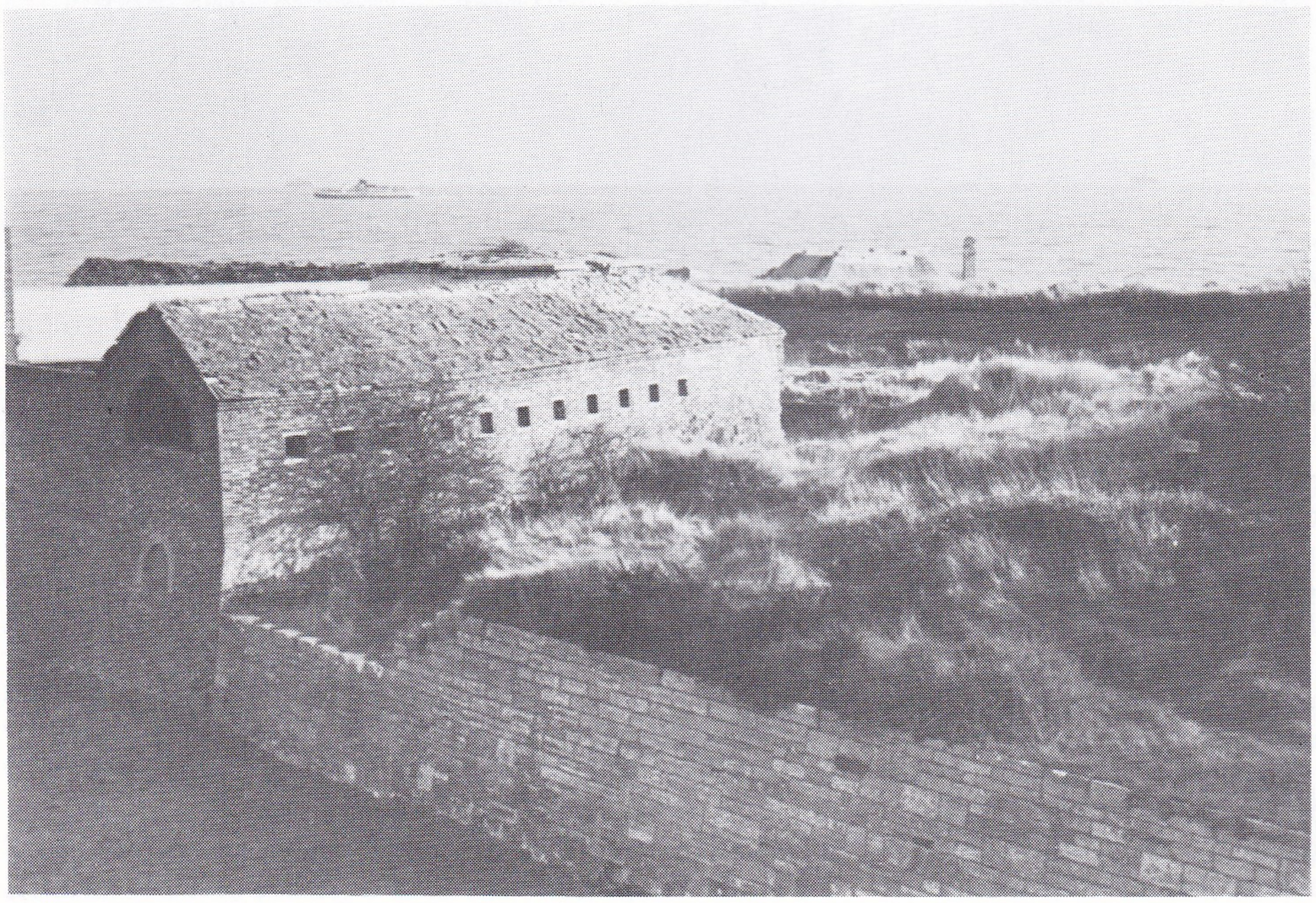


Figure 72 FORT MONCKTON partly demolished NE caponier. (Mr. J. E. Wyke.)

'barb' of the arrowhead an archway and steps led up to a shallow ditch between the caponier and covered way; from this ditch further steps led up to the covered way. In the case of the NE caponier, the landward barb has been demolished and the seaward one shows no sign of a sally port. It was near the main entrance and was on the side of the Fort less vulnerable to attack; probably no sally port was needed.

There were ten traverses across the covered way, four adjacent to the two ravelins and six near the three principal angles of the moat. One is still intact, a small parapet with a firing step on one side. The intention was first to give some protection against enemy enfilading fire and secondly, if the attackers occupied part of the covered way, to enable the defenders to defend the rest until forced to retreat to the main entrance of the Fort or to the SW caponier. Recesses in the outer wall of the covered way provided passage round six of the traverses.

Beyond the covered way the glacis slopes gently away, at a gradient designed to ensure that all of it could be swept by fire from the rampart and much of it from the ravelins. It is best seen on the west side of the Fort, where it continues right down to the old shore-line of the lake.

The road out of the gatehouse passed over the moat by a bridge, turned sharp right on the covered way behind the ravelin, and went through a cutting in the glacis. It is not certain whether the bridge partly shown in Fig. 66 was ever built as shown, but a map surveyed in 1860–61[72] shows a drawbridge. It has now been replaced by an embankment. The road has since been straightened, the east part of the ravelin being demolished in the process. The 18th tee of the golf course is now on the point of the ravelin. The old cutting remains, and a discontinuity in the brick-work of the retaining wall on each side indicates the old slope of the glacis.

In the 1790s Ordnance built Haslar sea wall of Purbeck stone between the Fort and the beginning of the Hospital grounds.[73] At some stage ramparts were built behind the SW part of this wall. The remains of one can be seen between the public car park and the sea. There is another in the grounds of the Fort; its parapet and firing step remain, but its terre-plein has been largely removed. On the other side of the Fort an entrenchment ran between the glacis and Gilkicker Battery, but this has disappeared.

Fort Monckton, the Water Defences

As already mentioned, the glacis slopes down to the old shore-line of the lake, which until 1975 extended to Fort Road. Though the lake was a natural feature, originally open to the sea, its east shore-line was adapted to run parallel with the outside of the covered way and therefore had a V-shaped peninsula to match the salient in front of the ravelin.

The pipe and sluice between the lake and the sea were installed in 1822. There was then some trace of an earlier drain, at a higher level, which was decayed and useless.[74]

After this but before 1857[75] there was constructed a wet moat from the north end of the lake almost to the sea east of the Fort. Its angles conformed to some extent with the angles in the outside of the covered way, but not so strictly as did those of the lake shore-line. This moat and the later Stokes Bay one faced in opposite directions: the former was to defend the Fort against attack from the north, whereas the latter was to defend the hinterland against landings on the south.

The road from the Fort crossed the wet moat by a

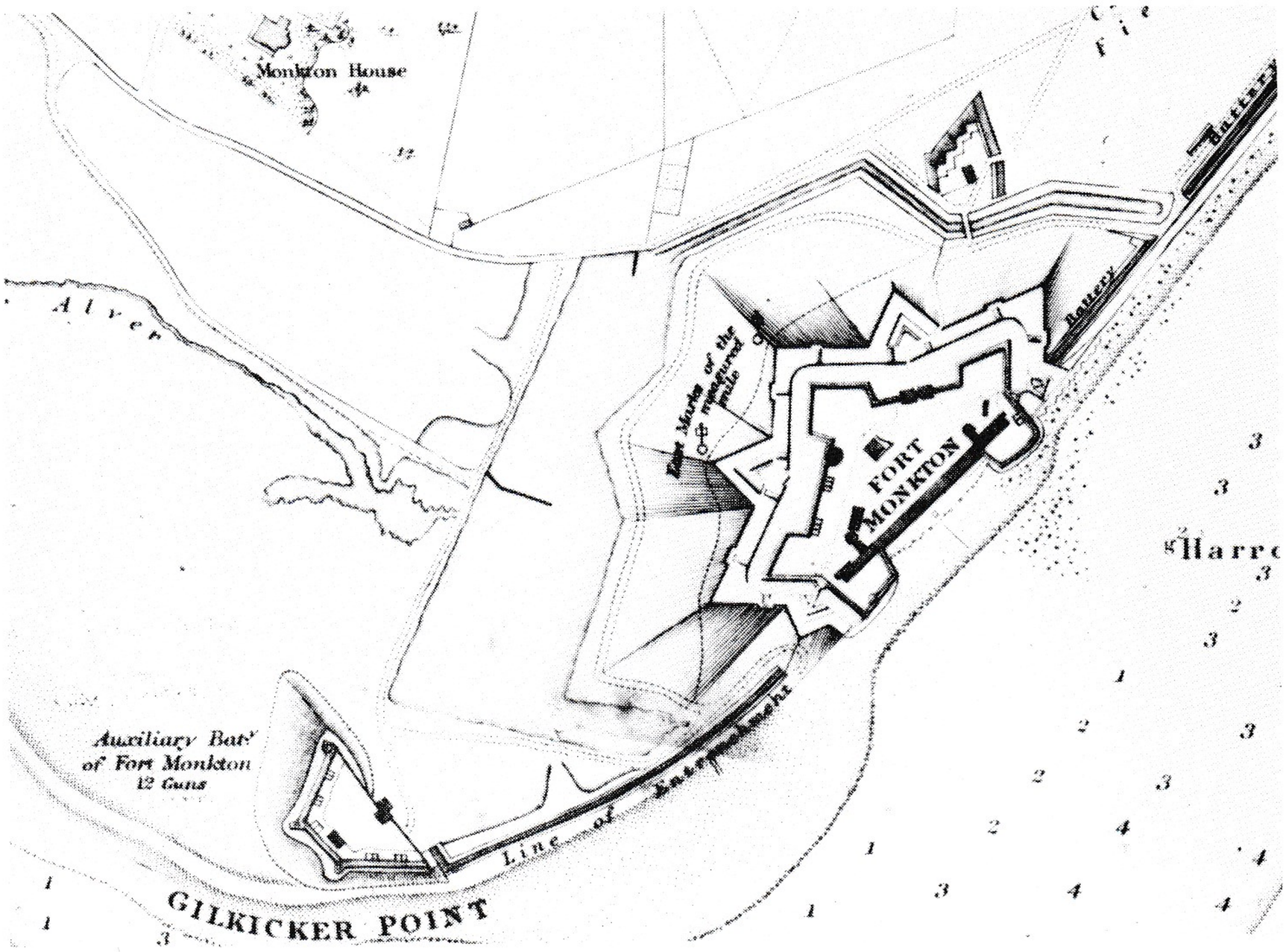


Figure 73 FORT MONCKTON AND GILKICKER BATTERY 1858, scale here 1/8700. (Reproduced from portion of BA Chart 2631, edition 1858, with the sanction of the Controller, HM Stationery Office, and of the Hydrographer of the Navy.)

bridge, which was defended by a V-shaped earthwork called a redan. Most of this still exists in front of the Golf Club House. The 10th tee is on it and the 9th/18th green within it.

In the 1970s the wet moat and the north end of the lake were unfortunately filled in, the eastern end of the moat being completely obliterated. The bridge is being replaced by an embankment. Though the Fort is now listed as an ancient monument and should be safe, its water defences have mostly been destroyed.

The Stokes Bay Redoubts

Lt. Gen. Monckton in a letter of 20 July 1779 to the C. in C. recommended that defensive lines should be thrown up at Stokes Bay.[76] Archer, the following year, said that quite minor entrenchments would suffice.[77] Continuous lines were not in fact constructed till about 1860, but in 1782 and 1783 there were erected on the edge of the high ground overlooking Stokes Bay Marsh six detached gun platforms;[78] these were at the time called redoubts, but seem to have lacked all-round defence. Expenditure on them continued for some years.[79]

The redoubts were numbered from west to east. To give present-day geographical descriptions: the first (see Fig. 80) was south of Palmerston Way; the second in Alvercliff Drive; the third on the corner of Anglesey Road and Stokes Bay Road; the fourth a little way along Fort Road; the fifth near the gate of the AMTE Physiological Laboratory; and the sixth a little further south-east.[80]

In addition to these six redoubts, which appeared on maps for many years and were mentioned in a compulsory purchase Act, there seem to have been three temporary ones which were probably abandoned after the end of the war in 1783: a seventh in the series, close to what was then the west shore of the lake; one south of the Alver at about the west end of the present Stokes Bay Road; and one west of the present Bay House School.[81]

On 29 October 1782 the Alverstoke Court Leet and Court Baron met at Stokes Bay House, a public house close to the sea (see p. 64).[82] They resolved:

> 'We present his Grace the Duke of Richmond or such other Person as have had the direction of the Government Works within this Manor, for digging up the Waste Lands in several places belonging to the Lord of this Manor; and we humbly pray that satisfaction may be made to the Tenants injur'd by destroying the Herbage and to the Lord of the Manor as owner of the Soil'.

This probably referred to the construction of the Redoubts. The Bishop of Winchester was Lord of the Manor. As we shall see, Ordnance solved the problem by buying the land.

In 1795 there was an issue of guns to five of the redoubts; the third was excluded.[83] In 1804 a committee recommended considerable expenditure on four batteries at Stokes Bay, but apparently nothing was done.[84] A very detailed map of 1820 shows five of the original redoubts but this time the fourth is excluded;[85] it had presumably disappeared by then.

In about 1860 the Stokes Bay Moat was constructed from Gilkicker Lake to Browndown. This, with its

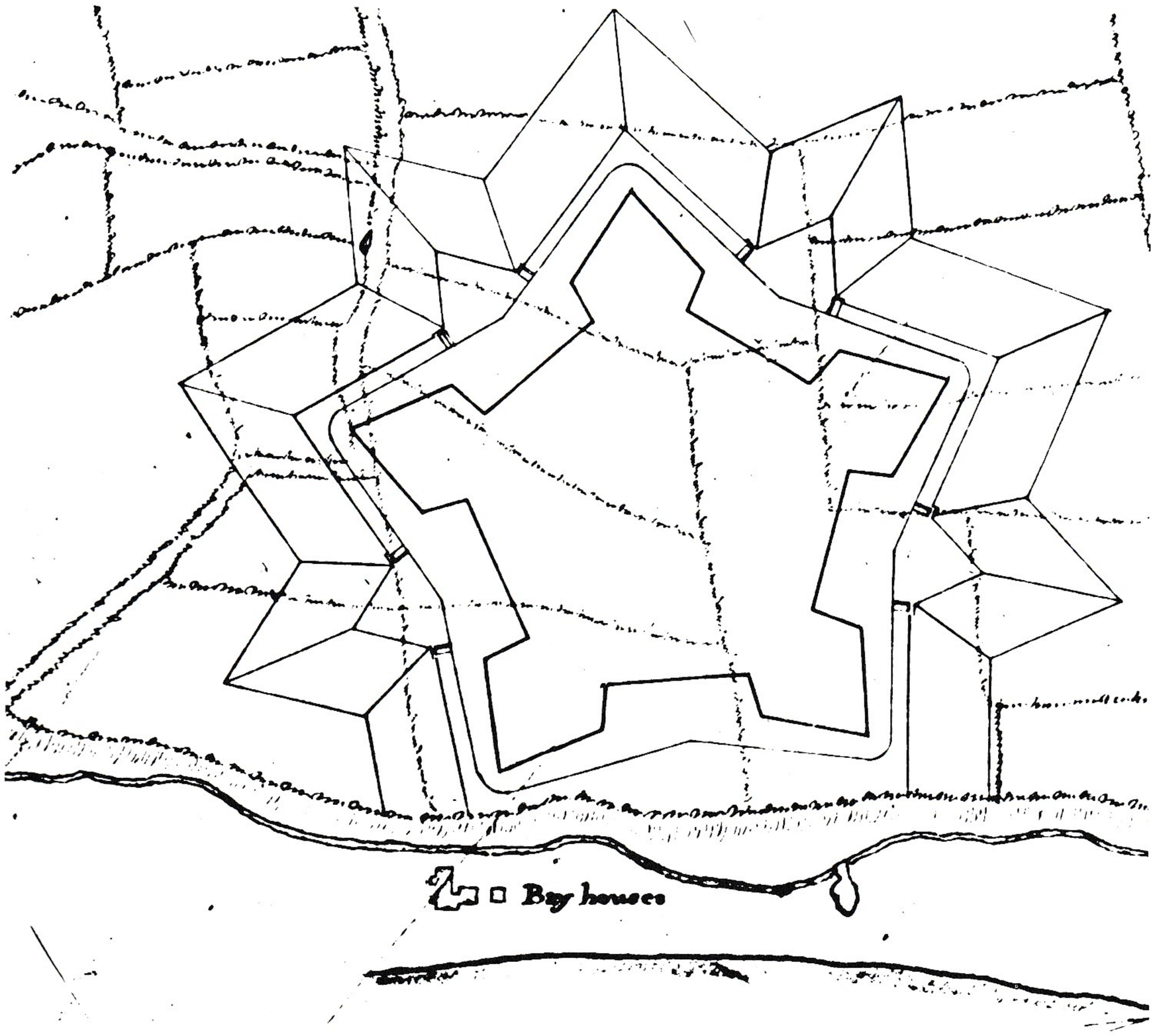


Figure 74 PROPOSED FORT AT STOKES BAY 1782, scale here 1/5400. (PRO MR 1173(1).)

associated batteries, entirely superseded the redoubts; they were probably derelict anyway. The natural bank south of what is now the eastern part of Palmerston Way was cut back to provide a straight course for the Moat; this must have involved demolishing the first redoubt if it then existed. On the site of the fifth redoubt there was built a new battery, which still exists inside the gates of the AMTE Physiological Laboratory. The third redoubt was still shown as 'Battery, remains of' in a plan of the 1890s.[86] No trace of any of the redoubts can now be found on the ground.

The proposed Fort at Stokes Bay, and Land Purchase

In the early 1780s there were various proposals for defences along the coast as far as Hill Head and along the Browndown-Rowner-Frater axis. Archer wished to prevent an enemy landing, whereas the Duke of Richmond wished to concentrate on defending the Gosport peninsula.[87] Of these proposals, the only one which got as far as the purchase of land was for a fort in what is now the area of Bay House. A proposal for a fort at Frater (about where Fort Elson was later built) lagged somewhat behind it in planning.

In 1782 a plan was produced for a pentagonal fort in what is now the area of Bay House (Fig. 74). This was marked out on the ground in the latter part of 1783,[88] and an estimate of the cost was presented to the House of Commons on 4 December 1783.[89]

Fort Monckton was being constructed on privately-owned land, and an Act authorising the compulsory purchase of 85 acres on and around its site was passed in the regnal year 22 George III (1781–82);[90] the Engineers had said that they wanted enough land to provide 400 to 500 yards radius of clear ground round the Fort.[91] In the following regnal year an Act was passed for the compulsory purchase of 90 acres on and around the site for the proposed pentagonal fort to the west.[92]

The Duke of Richmond then had bigger ideas. In 1784 further site preparation was in progress.[93] In November a plan was produced for a wider and more elaborate fort, with a ditch through Stokes Bay Marsh, which was to be flooded, at any rate in time of attack, and with a parallel moat running along the low ground near the present Kennedy Crescent and Village Road to Haslar Lake (Fig. 75). An Ordnance estimate presented to the House of Commons on 7 March 1785 explained that 'it has been judged expedient to increase the Dimensions first intended for the Fort at Stokes Bay, to strengthen it by inundations, and to construct every part in solid masonry, with . . . . advanced works, and covered defences in all the Flanks'.[94] The fort was to be called Fort Gomer,[95] though it was to be situated quite differently from the Fort Gomer which was actually built in the 1850s. The fate of this Ordnance estimate has already been described on p. 46.

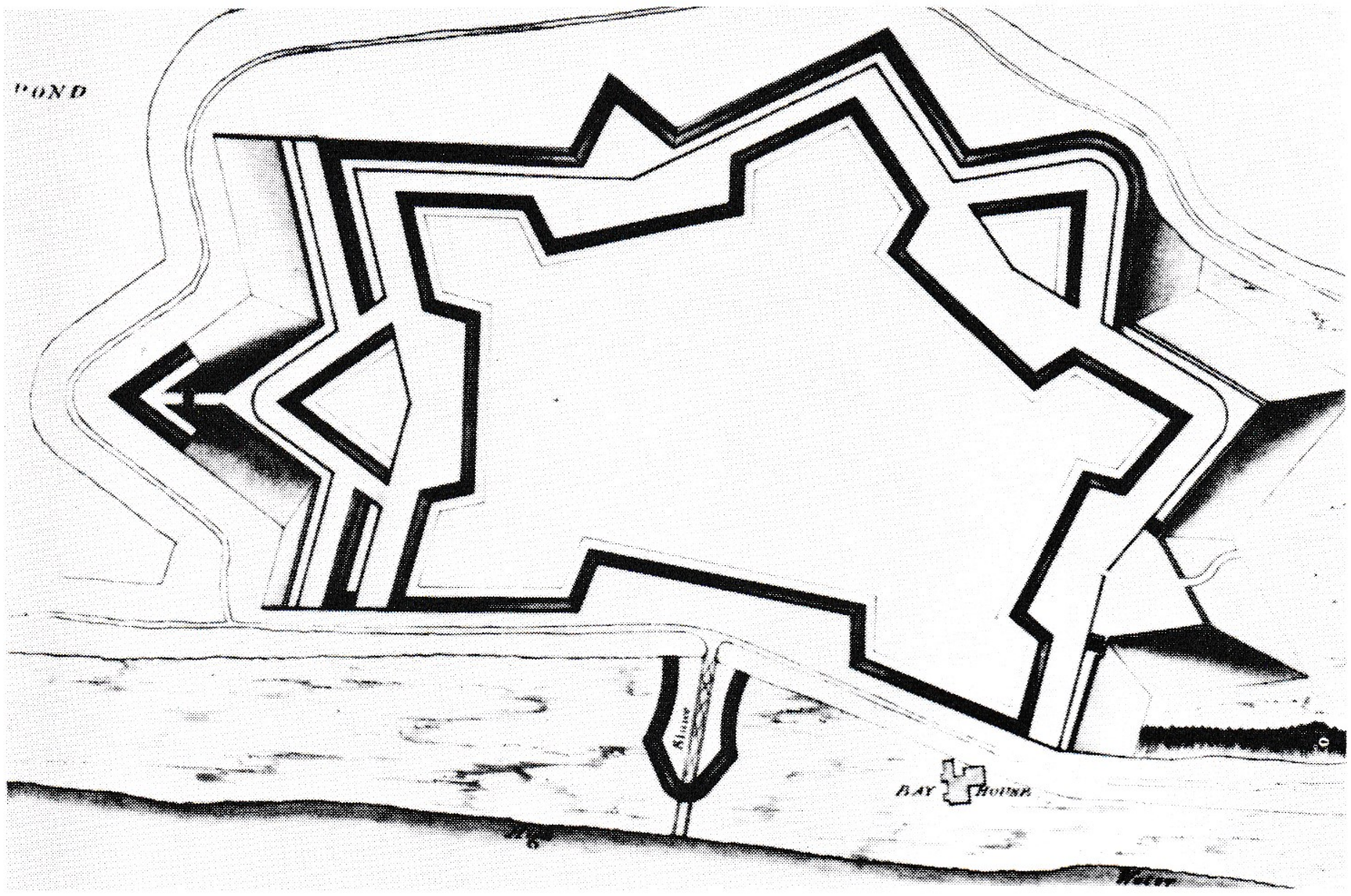


Figure 75 PROPOSED FORT AT STOKES BAY 1784, scale here 1/5400. (PRO MR 1426(3), cf. MR 578*.)

In the meantime the Duke had persuaded Parliament to let him go ahead with the purchase of the increased area of land required. In the regnal year 1783–84 a new compulsory purchase Act was passed.[96] This repealed the two Acts mentioned above, insofar as they related to Hampshire, and authorised the purchase of a belt of coastal land stretching from the south-west end of Haslar Hospital grounds to Browndown. Ordnance bought 432 acres under it in 1785. The purchase included the site of Fort Monckton and a 'camp ground' to the north-east of it on which two militia regiments had camped in 1782.[97] It included the six redoubts. West of what is now Jellicoe Avenue the land bought extended far enought inland to provide for the proposed new fort and its moats.[98] The Act had covered an area still further inland, presumably in order to preserve a clear field of fire from the fort; this area was not bought, but the owners were prohibited from building on part of it and were compensated accordingly.[99] To the north-west, the purchase included a strip of land reaching almost to Grange Farm; a proposed line of five redoubts appears here as an addition on 1782 plans,[100] and Ordnance may still have had something of the sort in mind. The Act did not cover the eastern part of the proposed new moat, close to Alverstoke village; presumably this thorny question was left for later legislation.

Soon after this the whole scheme was abandoned, and Ordnance were left with a large area of land not required for the purpose for which it had been intended. Of the area of the proposed fort, they used the northern part to grow walnut trees to provide wood for the stocks of muskets and used the southern part for making bricks (see Appendix I). They sold the land west of what is now Jellicoe Avenue in 1839, much of it being advertised as good building sites,[101] but bought much of it back about 20 years later. If the Palmerston Way area had not been bought for a fort which was never built, it might have been developed in the early 19th century instead of the 1930s.

In the 1790s Ordnance started rebuilding Fort Cumberland on the far side of Portsea Island. As rebuilt, it is very similar in size and layout to the proposed fort at Fig. 74, with the addition of a ravelin in the moat similar to one of those at Fig. 75. Some of the designs prepared for Stokes Bay may well have come in useful for Fort Cumberland.

Fort Gilkicker

As the first battery on the site of the present Fort Gilkicker was built in the 1850s, strictly both are outside the scope of this work. Nevertheless, as the former was regarded as an auxiliary battery of Fort Monckton, which is only 500 yards away, both ought to be described.

In 1856 the highly critical James Fergusson wrote[102] that since 1852 6-gun batteries had been erected at Southsea and at Gilkicker Point. 'These are wholly of earth, without any protection in front or in rear, and with parapets so enormously high, and, consequently, with embrasures so deep, that it is almost impossible to get them to stand; that on Gilkicker Point has already tumbled down once of its own accord, in the most unprovoked manner, and it is very doubtful whether their own fire would not cause their embrasures to bulge, and probably to fall in and smother the guns; certainly one shot from the enemy would effect this.'

Fig. 73 and maps of 1857 show that the battery faced in a more westerly direction, by over 30°, than

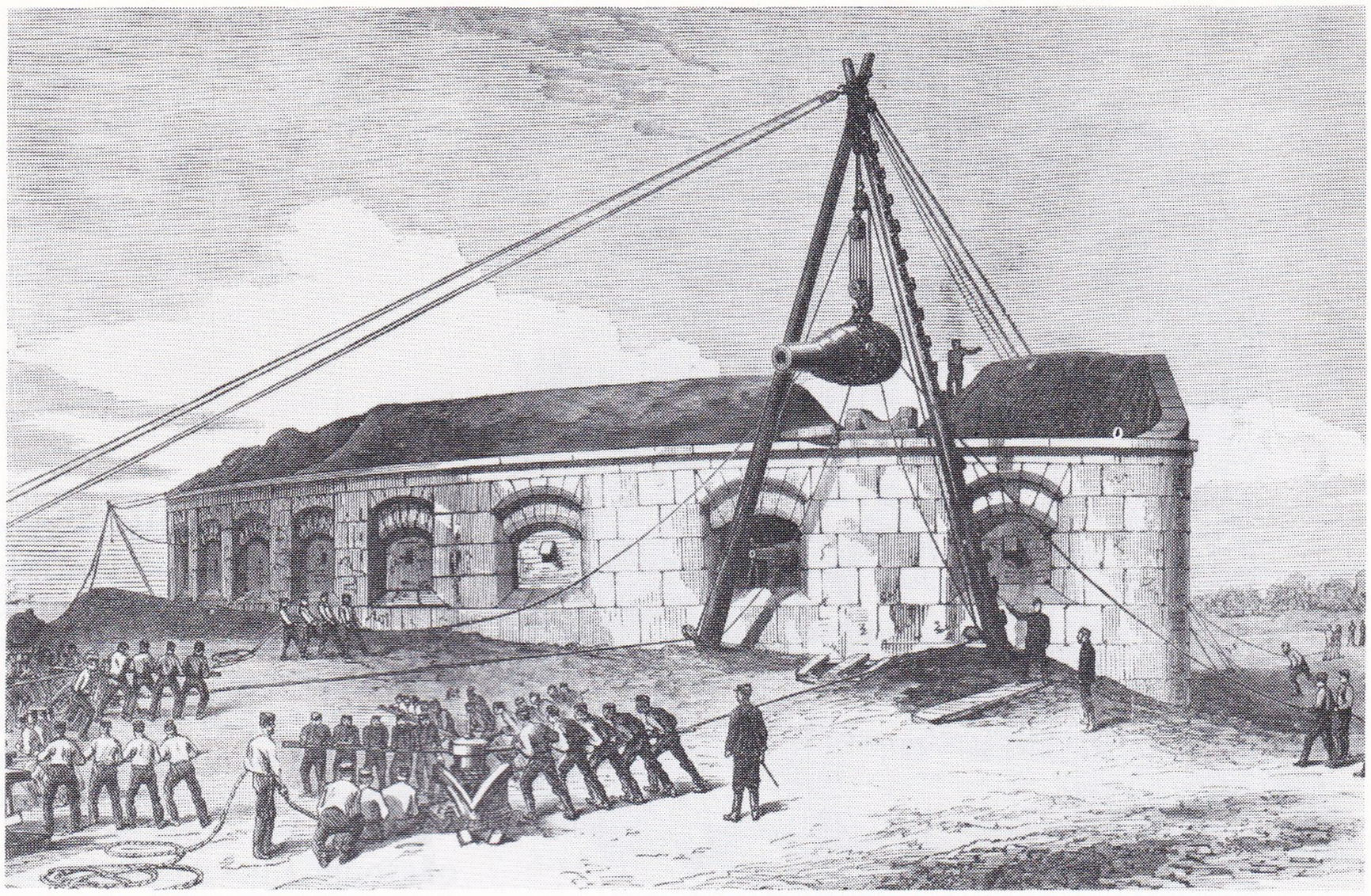


Figure 76 FORT GILKICKER 1871 (*Illustrated London News*, 29 July 1871.)

Figure 77 FORT GILKICKER 1879 (*Illustrated London News*, 25 Oct. 1879.)

the present Fort. It had a wet moat in front of it.[103] Fig. 73 shows it as having 12, not 6, guns.

The Royal Commission Report of 1860, which resulted in the building of the Portsdown Hill forts, the sea forts, and other major defences, recommended that the battery on Gilkicker Point should be 'extended and strengthened' and armed with 9 guns.[104] (James Fergusson was a member of the Commission.) Instead a completely new battery was built.[105] Work started in June 1863, but the contractor failed in November. Work re-started in June 1865, and was approaching completion in April 1869. The rebuilt battery soon became known as Fort Gilkicker.

The Fort, without the earth bank which was thrown up against it in about 1900, has a high almost semi-circular granite wall facing the sea, the ends being turned inwards along the back; the ends at the back are still exposed, and the granite construction can thus be seen. The back is closed by a defensible brick-built block; this seems to have comprised originally officers' accommodation, but in the 20th century comprised eight married soldiers' quarters. There

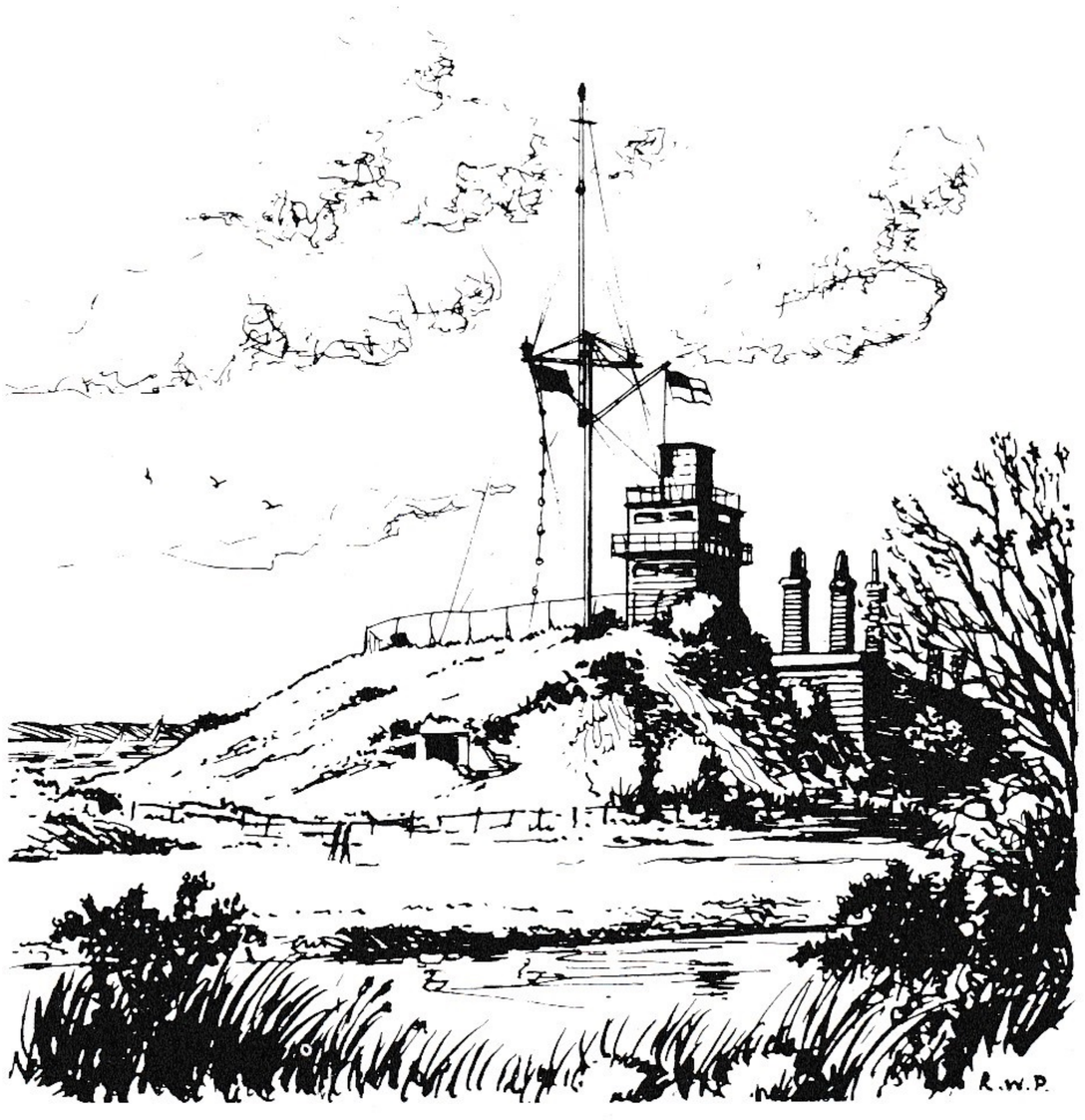


Figure 78 FORT GILKICKER 1964 (Sketch by Rear Adm. R. W. Paffard in possession of Cdr. J. Mowlam.)

were originally in the granite wall on the seaward side 22 small arches filled in with iron shields pierced by apertures for guns; these shields were an advanced feature not found in any of the other Gosport forts, though somewhat similar ones can be seen, for example, at Hurst Castle. Inside are casemates which covered the guns and provided barrack accommodation. Above, on the roof, were further guns.[106] The magazines form a basement running right round under the casemates; hoists were installed for raising the ammunition from the magazines to the guns. In 1869, before the rebuilding was finished, an exercise was carried out to determine whether the supply of ammunition could keep pace with the firing of the guns; some improvements were suggested.

In 1869 it was proposed to construct an auxiliary mortar battery for 16 mortars between Fort Gilkicker and Fort Monckton. Something of the sort seems to have been constructed, as there is a record of seven mortars in position in the 1880s, but no trace of it remains. A mortar battery has a high parapet, protecting the mortars from enemy fire, and an observation post; the high trajectory of the mortar bombs enables them to clear the top of the parapet.

By the 1890s six of the gun positions in the casemates, with the arches in front of them, seem to have been filled in, possibly to increase the stability of the structure. An armament book of that period [107]shows 15 guns in the casemates, with one position unfilled.

In about 1900[108] heavy guns (9.2 inch) were installed on top of the Fort, and the present earth bank was piled up against the seaward side of the granite wall. An old inhabitant of Alverstoke[109] has said that the bank was necessary because the weight of the guns cracked the wall. At this stage, five of the remaining 16 iron shields below were protected by semi-circular retaining walls, presumably to provide ventilation shafts to the top of the bank. The remainder of the shields were buried externally but left accessible in the casemates.

In 1970 14 of the remaining iron shields were sold as scrap and replaced by breeze blocks,[110] the two end ones being left in position.

On top of the derelict Fort there are now the remains of four gun emplacements. But the conspicuous feature there is a signal station for the RN and Lloyds, flying the White Ensign and the Lloyds flag.

EPILOGUE

Queen Victoria's reign saw a great advance in military science, particularly as regards warship and artillery design. This rendered the existing fortifications out of date and, in conjunction with renewed political difficulties with France, resulted in major works of a new type in the Portsmouth area. These are usually associated with the name of Lord Palmerston, who was Prime Minister when most of them were approved. Prof. A. Temple Patterson in *Portsmouth Paper* No. 3 deals fully with the political and strategic aspects of all this. The period is outside the scope of the present paper, but a brief summary of the Gosport works may be useful.[1]

In 1852 two batteries were erected at Browndown, one just west of the present course of the Alver and one in the position of the later Browndown Battery, on which the eastern observation tower of the ranges now stands.

Fort Gomer was built in 1853–8, according to an inscription on its gate,[2] west of what is now Gomer Lane; it has been demolished.

Fort Elson, now in Elson RN Armament Sub-Depot, was roughly contemporary with Fort Gomer, but a little later.[3]

In 1857 Maj. W. F. D. Jervois, Asst. Inspector-General of Fortifications, wrote a Report on the Portsmouth Defences,[4] which resulted in the building of Forts Grange, Rowner and Brockhurst to fill in the gap between Forts Gomer and Elson. They were started in 1858 and completed in the winter of 1862–3. It was intended to build between them a rampart and ditch, possibly navigable,[5] but this was not done.

The Jervois Report also recommended the building of the Stokes Bay Lines, which was in progress in 1860.[6] They comprised a moat from Browndown,

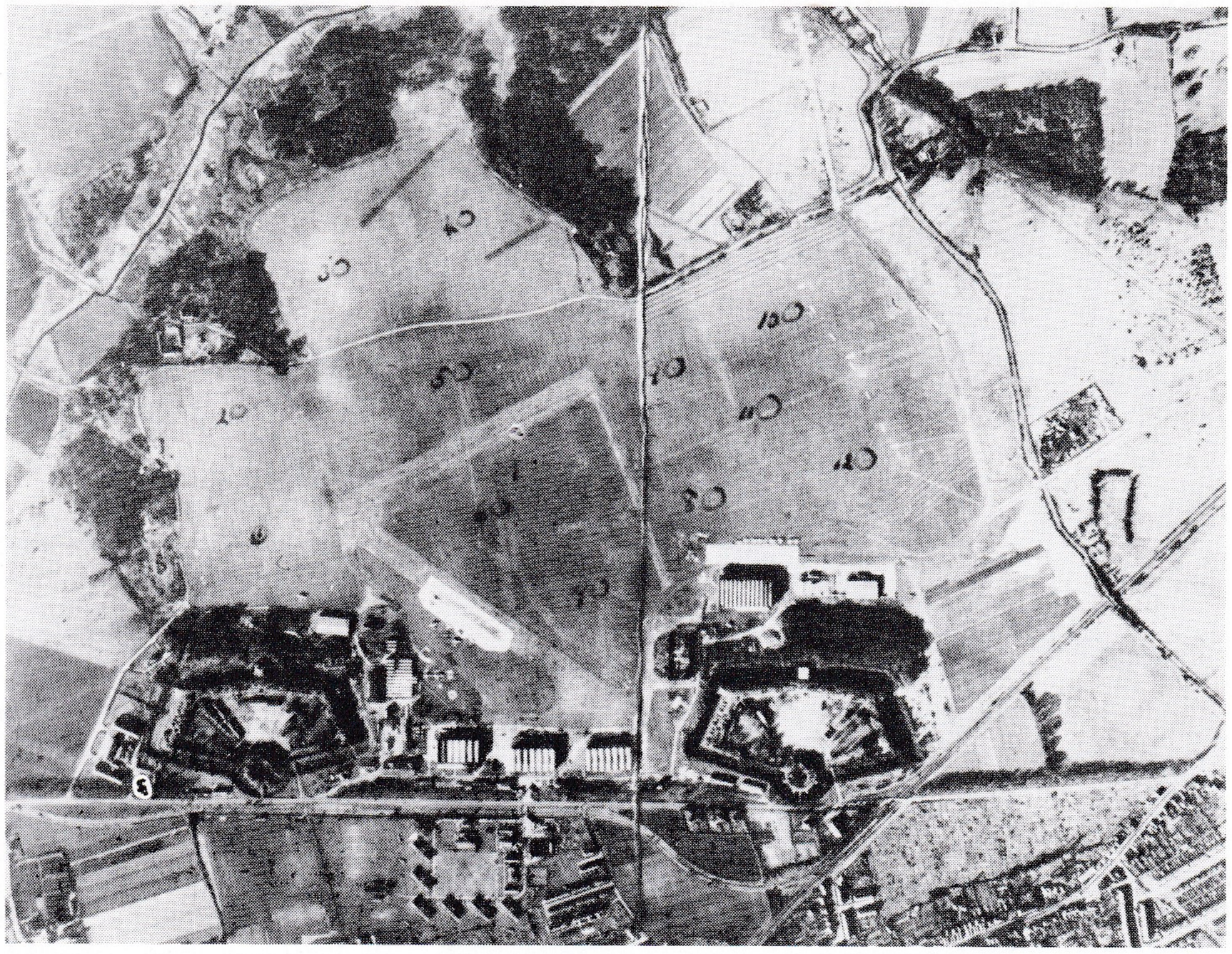


Figure 79 FORTS ROWNER AND GRANGE with Grange Airfield, Military Road and the railways to Gosport and Lee-on-Solent, 1953. (HMS *Daedalus*; reproduced by permission of MOD(N).)

well west of the Alver, to Gilkicker Lake, with a rampart behind it except along the eastern part of Palmerston Way, where there is an entrenchment in the high ground. There were five batteries along it: No. 1 astride Browndown Road immediately east of the Alver; No. 2 which still exists at the west end of Stokes Bay Road; No. 3 at the corner of Stokes Bay Road and Jellicoe Avenue; No. 4 at the west end of Fort Road; and No. 5 which still exists inside the gates of the AMTE Physiological Laboratory.

A Royal Commission on the Defence of the UK reported in 1860. Their recommendations resulted in the construction of the Portsdown Hill forts, Fort Fareham and, completed later, the sea forts. They also recommended forts at Peel Common and at Lee-on-Solent, but these were not built.

The only remaining substantial new work, apart from Gilkicker dealt with earlier, was Browndown Battery, comprising two gun emplacements, with a lightly protected perimeter, erected in 1888–9. It is now surmounted by the eastern observation tower of the ranges.

After this the trend of military science and politics was against fortifications, at any rate in the UK. The landward defences in the Portsmouth area became obsolete at about the turn of the century, though some very minor ones of the pill-box type were erected later; coast defence guns lasted longer, but were abolished in the UK as a whole in 1956. The various fortifications in this area are now used by the Navy or Army for purposes entirely different from those for which they were designed, are preserved as antiquities, lie derelict, or have been demolished. In a war waged with long-range missiles and hydrogen bombs the fixed defences which were a feature of the Portsmouth area for some five hundred years would have no part to play.

APPENDIX I

Stokes Bay Brickworks

Before 1788 all the bricks which Ordnance required in the Gosport area appear to have been purchased locally. But in that year Ordnance started making them at two locations, Priddy's Hard and Stokes Bay, at both of which bricks had been made long before by private enterprise. At Priddy's Hard the production seems to have been on a very small scale. We are here concerned with Stokes Bay.

As we have seen on p. 60, in 1785 Ordnance acquired a large area of land for a proposed new fort in the neighbourhood of the present Bay House School, but shortly afterwards had to abandon their intention of building the fort. They built on the land the two brickworks whose sites are shown on Fig. 80, the eastern 'Old Brick Establishment' at about the beginning of 1788 and the western 'Brick Establishment' at about the beginning of 1806. Each had a pier; the service road from the Old Brick Establishment to its pier is the present drive of Alverbank Hotel. Fig. 80 shows how each service road after leaving the brickworks passed over the bank at the edge of the

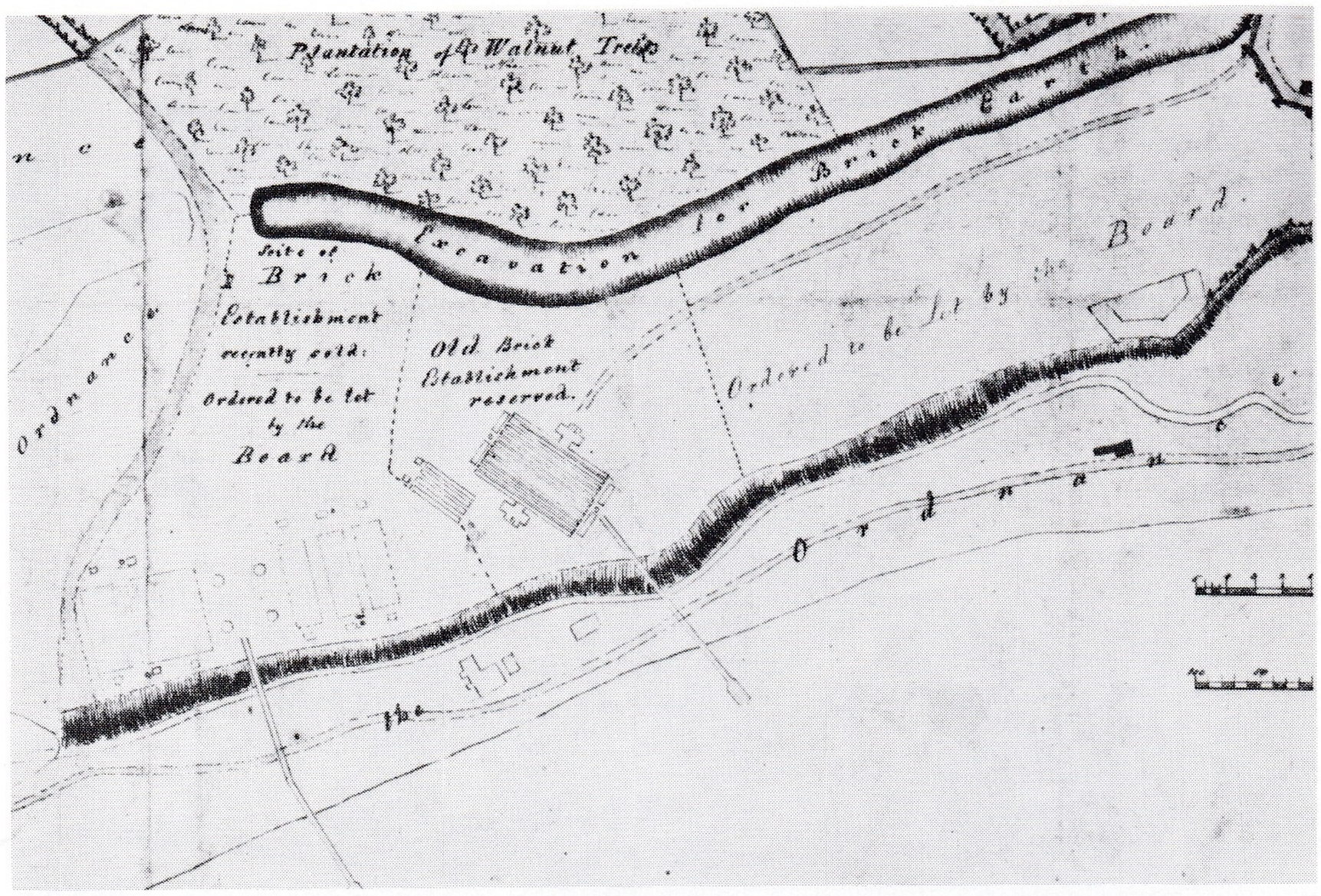


Figure 80 REMAINS OF STOKES BAY BRICK ESTABLISHMENTS, and on right, First Redoubt, 1820. The bottom of the map faces SW and the lower scale is divided into 10-yard units. (PRO MPHH 233(5).)

Figure 81 STOKES BAY HOUSE AND BRICKWORKS (The late Capt. G. Civil.)

plateau, over the Alver which flowed along the bottom of the bank, and then across the coast road. Between the two service roads were a public house known as Stokes Bay House (see p. 58) and a smaller coast-guard house to the east of it. Fig. 81 shows the Old Brick Establishment, the Alver, the two houses and the pier.

In April 1792 Ordnance advertised in the Hampshire Chronicle for coal, suitable for burning bricks, to be delivered by sea 'into his Majesty's stores at the Brick Kilns, near Stokes' Bay House'.

Ordnance at Portsmouth had standing arrangements for the hire of several vessels (hoys) for carrying stores in Portsmouth Harbour and nearby. In October 1788 the Duke of Richmond approved allowances of 9d. per thousand for transporting bricks from Bay House to Portsmouth Harbour and 1s/– per thousand for transporting them from Bay House to Fort Cumberland. There are records in 1789 of bricks being moved to Fort Cumberland, in 1790 of 65,000 being fetched from Stokes Bay 'on Account of Opening a Sally Port and making a Landing Place near the Point Gate', in 1793 of 100,000 being sent to Shoreham Harbour, in 1801 of 38,000 being trans-shipped in Portsmouth Harbour for St. Vincent, West Indies, and in 1803 of 37,000 being sent to Sconce Point,

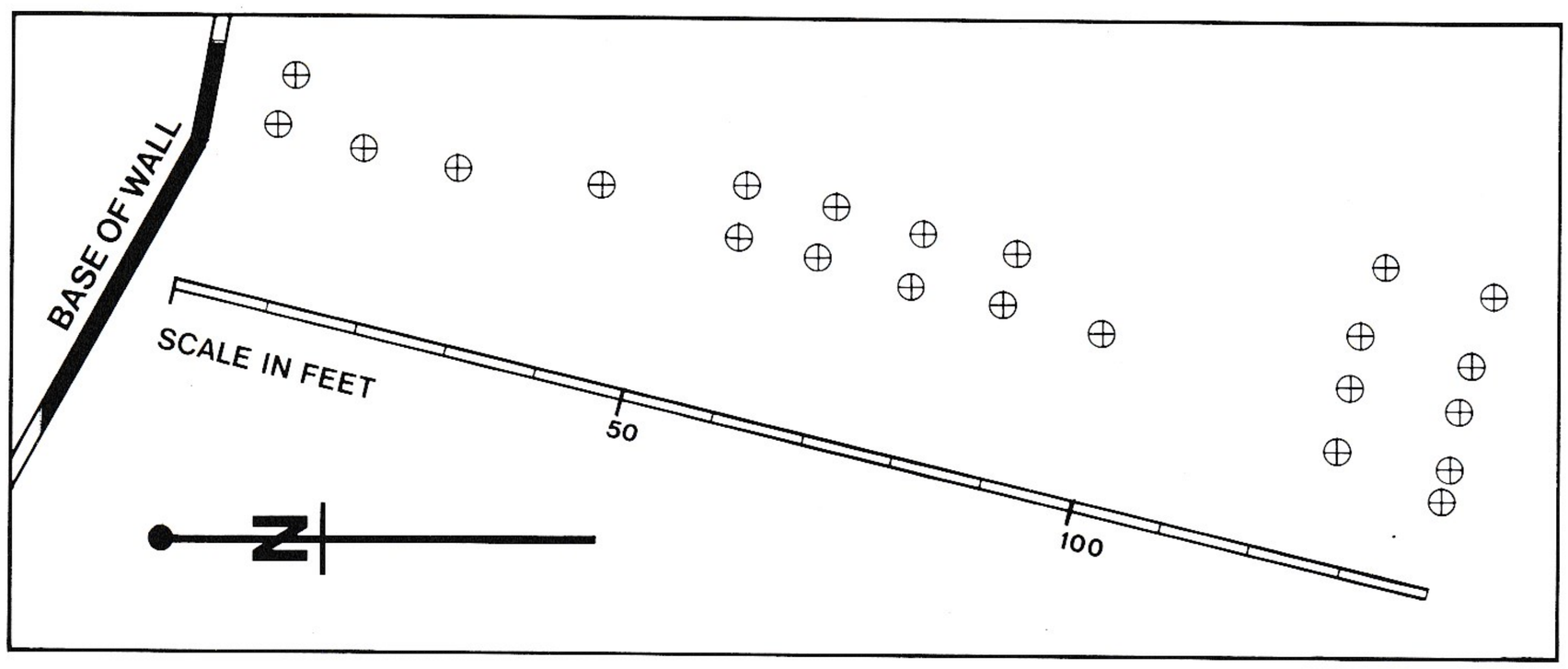


Figure 82 POSITIONS OF STUMPS OF PIER OF OLD BRICK ESTABLISHMENT 1974 (Drawn by the Technical Editor from a larger drawing by the author, PCRO 671A/10.)

Isle of Wight. Unfortunately it is not clear which of two existing sally ports near the former King James's Gate was under construction in 1790, and in each case the original landing place has been destroyed and any brickwork has been faced with stone.

The most interesting shipments were to Gibraltar, where extensive works were in progress as the result of experience during the Great Siege of 1779–83. The Commanding Engineer there wished to experiment with arch bricks (i.e. tapered bricks), and the Duke of Richmond instructed the Commanding Engineer at Portsmouth to send out as many as possible from the kilns at Fort Cumberland or Stokes Bay. Accordingly, in July and August 1791 Ordnance advertised in the Hampshire Chronicle for tenders for conveying 800 tons of arch bricks from the Brick Wharf, in Stokes Bay, to Gibraltar; the advertisement stated that there were between 12 and 13 feet of water at the Wharf at spring tides, and that from 150 to 200 tons could be shipped in one day. No tenders were received, but Ordnance were able to arrange for a ship to sail from Stokes Bay on 17 September with 56,000 bricks; she arrived at Gibraltar on 5 October.

The Engineers at Gibraltar did not like the arch bricks, but there were many further shipments of ordinary Stokes Bay bricks. The fragmentary records available show about 750,000 as sent to Gibraltar in the period 1798–1802. These were trans-shipped in Portsmouth Harbour, not sent direct from Stokes Bay as the 1791 consignment had been.

It seems from Fig. 80 that by 1820 the brick establishments were disused and the materials of the western one had been sold for demolition. By 1832 the eastern one also had been demolished. The eastern pier continued to be shown on maps up to 1839, but not thereafter.

The drive of Alverbank Hotel crosses the former course of the Alver by a brick bridge; this must be older than about 1860, when the Alver was diverted, and may well be the original Ordnance bridge. At very low tides one can see stumps of the eastern pier. Fig. 82 is based on a plan of 22 of them plotted by the author in 1974; since then the sea wall has been moved outwards by 8 ft. 2 inches, and at least two of them have been destroyed in the process.

Large quantities of Stokes Bay bricks must survive in fortifications and other Ordnance buildings at home and overseas, but unfortunately it does not seem possible to identify any of them.

APPENDIX II

Reproductions of Maps

The following modern reproductions of old maps (or of parts of them) show defences described in this paper; most of the originals are mentioned in the References. The first column gives the reference of the reproduction within the portfolio or volume described beneath. The second gives the reference of the original. The third gives the number (if any) of the original in D. Hodson, *Maps of Portsmouth before 1801* (Portsmouth Record Series), City of Portsmouth, 1978. The fourth shows its date, after Hodson where he lists it; where it is a fairly close copy of an earlier map, the date of this earlier map is shown in brackets. Maps reproduced in this paper are generally not shown here, but most of them can be located in Hodson, *op. cit.*, by the use of his Appendix V.

Some of the maps show proposals not carried into effect.

Repro.	*Original*	*No.*	*Date*
(a) No. 1	BL Cott. MSS Aug.I. ii. 117	32a	*c.* 1584?
(f) No. 5 (1972) p. 26	PRO MPF 134	2	*c.* 1587
(a) No. 3	BL Add. MSS 16371a	3a	*c.* 1665 (1626)
(f) No. 7 (1973) p. 8	MOD Hydrographic Dept. D623 17d (on loan to NMM)	20	*c.* 1665?
(a) No. 4	BL Add. MSS 16371c	40	1668
(a) No. 5	PCL Dartmouth Collection no. 6	78	*c.* 1678
(a) No. 6	Bodl. Gough maps Hampshire 12	14a	1716
(b) p. 20	PRO MPHH 29	21b	*c.* 1716
(a) No. 7	PRO MPHH 67(2)	56c	*c.* 1770? (1716)
(h) Fig. 21	PRO MPE 386	83a	1742
(a) No. 8	BL K.Top.XIV 28	61c	*c.* 1744 (1743)
(b) p. 28	BL K.Top.XIV 30	28a	1750
(a) No. 10	BL K.Top.XIV 23	84a	1751
(g) p. 10	MOD RN Historical Library B.31		*c.* 1754
(a) No. 14	PRO MPHH 293(5) (wrongly described)	87g	1758 (1757)
(d) p. 4	Chateau de Vincennes, Paris (copy in PCL)		1768
(a) No. 11	BL K.Top.XIV 16	18	1773
(a) No. 12	BL K.Top.XIV 10/2	92	1774
(h) Fig. 32	PRO MR 987 (mis-interpreted)	98	1790
(e) p. 5	PCRO Ordnance Survey one-inch sheet XI	10	1810 (1797)
(c) p. 5	Report of Royal Commission on Defence of UK		1860
(i) Sheet 86	Ordnance Survey one-inch Sheet XI		1864
(h) Fig. 35	BA Chart 2631		1913

(a) *Early Portsmouth Maps* (Portsmouth Record Series, Portfolio I), City of Portsmouth, 1978. (Large reproductions, mostly coloured.)

(b) D. Hodson, *op. cit.*

(c) A. Temple Patterson, '*Palmerston's Folly*' *The Portsdown and Spithead Forts* (*PP* no. 3), Portsmouth City Council, 1967.

(d) A. Temple Patterson, *Portsmouth – A French Gibraltar*? (*PP* no. 10), Portsmouth City Council, 1970.

(e) Nigel Yates, *Ritual Conflict at Farlington and Wymering* (*PP* no. 28), Portsmouth City Council, 1978.

(f) *Gosport Records.*

(g) A. L. Revell, *Haslar The Royal Hospital*, Gosport Society, 1978.

(h) G. H. Williams, *The Earlier Fortifications of Gosport*, Gosport Historic Records and Museum Society, 1974.

(i) *Reprint of the first edition of the one-inch Ordnance Survey of England and Wales*, David and Charles, Newton Abbot, 1969–71.

GLOSSARY (See Fig. 12)

Bastion	Portion of rampart projecting in direction of enemy.
Battery	Group of guns and the position prepared for them.
Berm	Level space between rampart and ditch.
Caponier	Protected passage projecting into or crossing ditch, often with bomb-proof roof and with embrasures for firing along ditch.
Casemate	Space with vaulted roof, with thick covering of earth, brick or stone.
Counter-scarp	Outer slope of ditch.
Covered way	Area outside ditch, protected by glacis from enemy.
Cunette	Deep portion in middle of ditch.
Curtain	Portion of rampart between bastions.
Demi-bastion	Asymmetrical bastion, one side having a normal and the other a simplified plan.
Ditch or Moat	Line of excavation, either dry or filled with water.
Embrasure	Aperture in parapet or wall through which gun can fire.
Enceinte	The line of rampart round a defended area.
Enfilade	Fire from flank along the length of a work.
Expense magazine	Small magazine for ammunition for immediate use.
Glacis	Outer slope of fortification, beyond moat.
Magazine	Store for ammunition (usually gunpowder).
Moat	See *Ditch.*
Ordnance	Guns; but here also an abbreviated term for the Board of Ordnance and their staff.
Parapet	Bank or low wall in front of defenders, who can fire over it or through embrasures.
Platform	Level place for guns, normally with parapet in front.
Rampart	Continuous bank, from which defenders may fire.
Ravelin	V-shaped work in front of curtain, in the more sophisticated defences forming an island in the ditch.
Redan	V-shaped outwork.
Redoubt	Detached position for guns, dependent on neighbouring fort for men and ammunition.
Sally-port	Small exit from fortification.
Scarp	Slope between rampart and ditch.
Terre-plein	Area for men and guns behind parapet on rampart.

Until 1751 the legal year ended on 24 March. To avoid confusion, dates prior to 1752 in the period 1 January to 24 March are generally given in the form 9 March 1539/40, which means the 9 March after December 1539 and before April 1540.

NOTE ON THE AUTHOR

After taking a science degree at Cambridge he spent his career as a civil servant in the War Office and Ministry of Defence (Army), serving mainly in Whitehall but also as Command Secretary in Egypt and Chester. On retirement as an Assistant Secretary in 1967 he settled in Alverstoke and took up research in local history as a hobby. He collected on behalf of the Gosport Society a large number of photo-copies of historical material which are now in Gosport Museum, assembled some of the Alverstoke parish records now in the City Records Office, and has written many articles in several magazines.

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Many of the manuscripts cited in the references are maps. Nearly all of these maps which were drawn before 1801 are described, with much useful information (including dates), in D. Hodson, *Maps of Portsmouth before 1801* (Portsmouth Record Series), City of Portsmouth, 1978, and can be found there by the use of its Appendix V. Other Appendices give information about military engineers and Acts of Parliament mentioned in this paper. More important, this book makes it possible to locate maps showing the stages of development or planning of particular fortifications at different dates. Some similar maps after 1800 can be located by means of *Maps and Plans in the Public Record Office*, vol. I, HMSO, 1967, pp. 215, 224, 225 and 252.

Ordnance Survey maps often omit fortifications for reasons of military security. There are references below to certain copies, existing in Portsmouth, of similar maps prepared for the War Office which include fortifications. Also, Admiralty charts are less liable to exclude fortifications than are Ordnance Survey maps. Early printed Admiralty charts are rare; those referred to below are in the Ministry of Defence Hydrographic Department, Taunton, or BL.

Most of the printed books referred to are in Southampton University Library Cope Collection or PCL.

A little-known source referred to below is the documents now held in the Ordnance Museum at Priddy's Hard in the RN Armament Depot, Gosport. Apart from the archives of Priddy's Hard itself (see page 31), these comprise mainly 18th-century letters received by the Ordnance Office, Portsmouth (now filed in date order); contemporary copies of many of them are in PRO series WO.55/1985–2121.

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